DRAFT FOR COMMENT

The Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) Implementation Guidance

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This document provides guidance to states, tribes, and U.S. Environmental Protection Agency (EPA) Regions exercising primary enforcement responsibility under the Safe Drinking Water Act (SDWA) and contains EPA's current policy recommendations for complying with the Stage 2 Disinfectants and Disinfection Byproducts Rule (DBPR). Throughout this document, the terms "state" or "states" are used to refer to all types of primacy agencies including U.S. territories, Indian tribes, and EPA Regions.

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This is a living document and may be revised periodically without public notice. EPA welcomes public input on this document at any time. Guidance provided in this draft document reflects provisions proposed on August 18, 2003 (68 *FR* 49547).

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List of Acronyms and Abbreviations

CCR	Consumer Confidence Report
CDC	Centers for Disease Control
CFE	Combined Filter Effluent
CFR	Code of Federal Regulations
CWSs	Community Water Systems
DBPs	Disinfection Byproducts
DBPPs	Disinfection Byproduct Precursors
EA	Economic Analysis
EPA	U.S. Environmental Protection Agency
FBRR	Filter Backwash Recycling Rule
FRDS	Federal Reporting Data System
GWUDI	Ground Water Under the Direct Influence of Surface Water
HAA5	Haloacetic Acids (Monochloroacetic, Dichloroacetic, Trichloroacetic, Monobromoacetic and Dibromoacetic Acids)
HQ	Headquarters
IDSE	Initial Distribution System Evaluation
IESWTR	Interim Enhanced Surface Water Treatment Rule
IFE	Individual Filter Effluent
LRAA	Locational Running Annual Average
LT1ESWTR	Long Term 1 Enhanced Surface Water Treatment Rule
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rule
MCAA	Monochloroacetic Acid
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
M-DBP Cluster	Microbial-Disinfectants/Disinfection Byproducts
MRDL	Maximum Residual Disinfectant Level
MRL	Minimum Reporting Level
NCWS	Noncommunity Water System
NIPDWR	National Interim Primary Drinking Water Regulations
NPDWR	National Primary Drinking Water Regulation
NTNCWS	Nontransient Noncommunity Water System
OECA	Office of Enforcement and Compliance Assurance
OGC	Office of General Counsel
OGWDW	Office of Ground Water and Drinking Water
ORC	Office of Regional Counsel
PWS	Public Water System
PWSS	Public Water System Supervision
RAA	Running Annual Average
SDWA	Safe Drinking Water Act
SDWIS/FED	Safe Drinking Water Information System/Federal
SMP	Standard Monitoring Program
SNC	Significant Non-complier
SSS	System-specific Study
Stage 1 DBPR	Stage 1 Disinfectants and Disinfection Byproducts Rule
Stage 2 DBPR	Stage 2 Disinfectants and Disinfection Byproducts Rule

SWTR	Surface Water Treatment Rule
TCAA	Trichloroacetic Acid
TCR	Total Coliform Rule
TOC	Total Organic Carbon
TTHM	Total Trihalomethanes (Chloroform, Bromodichloromethane, Dibromochloromethane, and Bromoform)
UV	Ultraviolet Light

Introduction

This document provides guidance to EPA regions and states exercising primary enforcement responsibility under the Safe Drinking Water Act (SDWA) concerning how the U.S. Environmental Protection Agency (EPA) interprets the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) under the SDWA. It also provides guidance to the public and the regulated community on how EPA intends to exercise its discretion in implementing the statute and regulations. This draft guidance is designed to implement national policy on these issues.

The SDWA provision and EPA regulations described in this document contain legally binding requirements. This document does not substitute for those provision or regulations, nor is it a regulation itself. It does not impose legally-binding requirements on EPA, states, or the regulated community and may not apply to a particular situation based upon the circumstances. EPA and state decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from this draft guidance, where appropriate. Any decisions regarding a particular facility will be made based on the applicable statutes and regulations. Therefore, interested parties are free to raise questions and objections about the appropriateness of the application of this draft guidance to a particular situation, and EPA will consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation based on the law and regulations. EPA may change this draft guidance in the future.

This draft manual contains the following sections:

Section 1 summarizes the rule requirements of the Stage 2 DBPR and presents a timetable of important dates. Section 2 lists the "stand-alone" guidance materials that will help states and public water systems (PWSs) adopt each new requirement. Section 3 discusses state implementation activities. Section 4 covers state primacy revision requirements, including a detailed timeframe for application review and approval. This section also contains guidance and references to help states adopt each new special primacy requirement included in these rules. Section 5 addresses violation determination and associated reporting requirements to assist states in their compliance activities.

The appendices of this document also provide information that will be useful to states and EPA regions throughout the primacy revision application process. Appendix A contains the primacy revision application crosswalk for the rule. Appendix B contains the rule language of the Stage 2 DBPR. Appendix C contains a fact sheet and a draft quick reference guide for the rule. Appendix D contains the data entry instructions for the Stage 2 DBPR.

Please note that in several sections the guidance makes suggestions and offers alternatives that go beyond the minimum requirements indicated. EPA does this to provide information and/or suggestions that may be helpful to implementation efforts. Such suggestions are prefaced by "may" or "should" and are to be considered advisory. They are not required elements of the Stage 2 DBPR.

EPA will undertake necessary rule implementation activities during the period of early implementation. During this period, the state may elect to undertake some or all of the implementation activities in cooperation with EPA. This will facilitate continuity of implementation and ensure that system-specific advice and decisions are made with the best available information and are consistent with existing state program requirements.

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Section 1

Rule Requirements

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1.1 Introduction

EPA proposed the Stage 2 DBPR in the *Federal Register* on August 18, 2003 (68 *FR* 49547; see www.epa.gov/safewater/stage2/index.html). This rule is part of a series of rules, the "Microbial-Disinfectants/Disinfection Byproducts Cluster" (M-DBP Cluster), which is intended to improve control of microbial pathogens while minimizing public health risks of disinfectants and disinfection byproducts (DBPs). The Stage 2 DBPR builds upon the Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR) by addressing the health risks of DBPs in community water systems (CWSs) and nontransient noncommunity water systems (NTNCWSs) that add a primary or residual disinfectant other than ultraviolet light (UV) or deliver water that has been treated with a primary or residual disinfectant other than UV. Key provisions of the Stage 2 DBPR include:

- An initial distribution system evaluation (IDSE) to identify compliance monitoring locations that represent high total trihalomethanes (TTHM) and haloacetic acids (HAA5) concentrations throughout the distribution system.
- A locational running annual average (LRAA) calculated for each monitoring location in the distribution system for TTHM and HAA5.
- A two-phased approach to comply with TTHM and HAA5 maximum contaminant levels (MCLs) (Stage 2A and Stage 2B).
- Significant excursion evaluations if high individual TTHM or HAA5 concentrations are detected in the distribution system.

The Stage 2 DBPR has been proposed concurrently with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), which addresses the control of microbial pathogens. The LT2ESWTR was proposed as a separate rule on August 11, 2003.

1.1.1 History

The 1974 SDWA called for EPA to regulate drinking water by creating the national interim primary drinking water regulations (NIPDWR). In 1979, the first interim standard addressing DBPs was set for TTHMs, a group of four volatile organic chemicals that form when disinfectants react with natural organic matter in the water.

Although the SDWA was amended slightly in 1977, 1979, and 1980, the most significant changes to the 1974 law occurred when the SDWA was reauthorized in 1986. To safeguard public health, the 1986 Amendments required EPA to set health goals, or maximum contaminant level goals (MCLGs), and MCLs for 83 named contaminants. Waterborne disease-causing microbial contamination had not been sufficiently controlled under the original Act. EPA was required to establish regulations within certain time frames, require disinfection of all public water supplies, specify filtration requirements for nearly all water systems that draw their water from surface sources, and develop additional programs to protect ground water supplies.

In 1989, EPA issued two important National Primary Drinking Water Regulations (NPDWRs): The Total Coliform Rule (TCR) (40 CFR 141.21) and the Surface Water Treatment Rule (SWTR) (40 CFR

141 Subpart H). The TCR and SWTR provide the foundation for the M-DBP Cluster, which are summarized below.

Total Coliform Rule

The TCR covers all PWSs. Coliforms, because they are easily detected in water, are used to assess a water system's vulnerability to pathogens. In the TCR, EPA set an MCLG of zero for total coliforms. EPA established an MCL for total coliform and required testing of total-coliform positive cultures for the presence of *Escherichia coli* (*E. coli*) or fecal coliforms; these tests indicate more immediate health risks from sewage or fecal contamination. If more than 5 percent of the samples within a month contain coliforms, water system operators must report this violation to the state and the public. In addition, the TCR requires sanitary surveys every 5 years (or 10 years for noncommunity water systems (NCWSs) using a disinfectant and protected ground water) for every system that collects fewer than five routine total coliform samples per month. These are typically systems that serve fewer than 4,100 people.

Surface Water Treatment Rule

PWSs using surface water or ground water under the direct influence of surface water (GWUDI) as a supply are prone to microbial contamination of their source water. Pathogenic microorganisms that can contaminate source water can be removed or inactivated during the water treatment sedimentation, filtration, and disinfection processes. EPA issued the SWTR in response to a Congressional mandate requiring disinfection, and filtration where necessary, of systems that use surface water or GWUDI sources. The rule sets MCLGs for *Legionella*, *Giardia lamblia*, and viruses at zero because any exposure to these contaminants presents some level of health risk. The SWTR includes a treatment technique requirement for inactivation, or removal and inactivation, of these organisms.

Specifically, the SWTR requires that Subpart H systems have sufficient treatment to reduce source water concentrations of *Giardia lamblia* and viruses by at least 99.9 percent (3 log) and 99.99 percent (4 log), respectively. In addition, a disinfection residual must be maintained throughout the entire distribution system. For systems that filter, the adequacy of the filtration process is determined by measuring the turbidity of the treated water since high levels of turbidity often indicate that the filtration process is not working properly. The goal of the SWTR is to reduce risk to less than one infection per year per 10,000 people.

1996 SDWA Amendments

In 1990, EPA's Science Advisory Board, an independent panel of experts established by Congress, cited drinking water contamination as one of the most important environmental risks and indicated that disease-causing microbial contaminants (e.g., bacteria, protozoa, and viruses) are probably the greatest remaining health-risk management challenge for drinking water suppliers. Data from the Centers for Disease Control (CDC) confirm this concern and indicate that between 1980 and 1998, 419 waterborne disease outbreaks were reported, with over 511,000 estimated cases of disease. During this period, a number of agents were implicated as causes of the outbreaks, including various protozoa, viruses, and bacteria, as well as several chemicals (Craun and Calderon 1996, Levy et al. 1998, Barwick et al. 2000). Most of the cases (but not the outbreaks) of illnesses were associated with surface water, including a single outbreak of approximately 403,000 cases of cryptosporidiosis in Milwaukee, WI (Mac Kenzie et al. 1994).

The SDWA was further amended in 1996 to improve public health protection by incorporating new data on the adverse health effects of contaminants, the occurrence of contaminants in PWSs, and the estimated reduction in health risks that would result from further regulation. The Amendments provided for use of best-available, peer-reviewed science in decision making, and for risk reduction and cost analyses in the regulatory decision process.

Filter Backwash Recycling Rule

The Filter Backwash Recycling Rule (FBRR) complements the surface water treatment rules by reducing the potential for microbial pathogens, particularly *Cryptosporidium* oocysts, to pass through the filters into the finished water of systems that use conventional and direct filtration. The FBRR requires affected systems to notify the state in writing about its recycle practices, maintain specific records, and return regulated recycle streams (i.e., spent filter backwash, thickener supernatant, or liquids from dewatering processes), through all processes of a system's existing conventional or direct filtration system (unless the state approves an alternate location).

IESWTR/LT1ESWTR/LT2ESWTR

The Interim Enhanced Surface Water Treatment Rule (IESWTR) builds on the SWTR by adding protection from *Cryptosporidium* through strengthened combined filter effluent (CFE) turbidity performance standards and individual filter effluent (IFE) turbidity provisions. The IESWTR applies to systems that serve more than 10,000 people. For unfiltered systems, *Cryptosporidium* must be included in watershed control requirements. In addition, the IESWTR builds on the TCR by requiring sanitary surveys for all PWSs using surface water or GWUDI. The IESWTR also requires covers for all new finished water storage facilities and includes disinfection profiling and benchmarking provisions to ensure systems provide continued levels of microbial protection while taking the necessary steps to comply with the DBP standards.

The provisions in the Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) address the concerns covered by the IESWTR as they apply to small systems (i.e., systems serving fewer than 10,000 people) using surface water or GWUDI. The LT2ESWTR builds upon the SWTR, IESWTR, and LT1ESWTR by supplementing existing microbial treatment requirements for systems where additional public health protection is needed.

Collectively, the SWTR, IESWTR, LT1ESWTR, and LT2ESWTR place stringent treatment requirements on systems using surface water or GWUDI as a source.

TTHMs/Stage 1 DBPR/Stage 2 DBPR

Many water systems treat their water with a chemical disinfectant in order to inactivate pathogens that cause disease. The public health benefits of common disinfection practices are significant and well-recognized; however, disinfection poses risks of its own. While disinfectants are effective at controlling many harmful microorganisms, they react with organic and inorganic matter (DBP precursors) in the water and form DBPs, some of which pose health risks when present above certain levels. Since the discovery of chlorination byproducts in drinking water in 1974, numerous toxicological studies have been conducted that show some DBPs to be carcinogenic and/or cause reproductive or developmental effects in laboratory animals. Additionally, exposure to high levels of disinfectants over long periods of time may cause health problems, including damage to blood and kidneys. While many of these studies

have been conducted with disinfectants at high doses, the weight of evidence indicates that DBPs present a potential public health problem that must be addressed even at low levels. One of the most complex questions facing water supply professionals is how to reduce risks from disinfectants and DBPs while providing adequate protection against microbial contaminants. Much of the population is exposed to these risks; therefore, a substantial concern exists.

The TTHM Rule of 1979 set a TTHM standard for CWSs serving 10,000 or more people. The Stage 1 DBPR built on the TTHM Rule by lowering the MCL for TTHMs and widening the range of affected systems to include all CWSs and NTNCWSs that add a disinfectant. The Stage 1 DBPR also established new MCLs for chlorite, bromate, and HAA5 as well as established maximum residual disinfection levels (MRDLs) for the disinfectants chlorine, chloramine, and chlorine dioxide. In addition, the Stage 1 DBPR requires conventional filtration systems to remove specified percentages of organic materials, measured as total organic carbon (TOC), that may react with disinfectants to form DBPs.

The Stage 2 DBPR builds upon the Stage 1 DBPR by providing more consistent protection from DBPs across the entire distribution system and by focusing on the reduction of DBP peaks. The Stage 2 DBPR changes the way sampling results are averaged to determine compliance. The determination for the Stage 2 DBPR is based on an LRAA (i.e., compliance must be met at *each* monitoring location) instead of the system-wide running annual average (RAA) used under the Stage 1 DBPR. In addition to changes in MCL compliance calculation, systems must also conduct an IDSE to identify compliance monitoring locations that represent high TTHM and HAA5 levels. Systems are also required to conduct a significant excursion evaluation if they have DBP levels that are significantly higher than the MCL.

The Multiple Barrier Approach

By building on the foundation of the original SDWA, subsequent amendments to the Act have improved the quality of drinking water and increased public health protection. The 1996 SDWA Amendments, for example, require EPA to develop rules to balance the risks presented by microbial pathogens and DBPs. The Stage 2 DBPR is one of the most recent rules in the M-DBP Cluster that expands on the foundation of prior rulemaking efforts.

Since multiple threats require multiple barriers, the Stage 2 DBPR and LT2ESWTR expand on the foundation of the TCR, SWTR, TTHM Rule, Stage 1 DBPR, IESWTR, LT1ESWTR, and FBRR standards to target health risks not addressed by prior regulations. By encompassing these previously unaddressed health risks from microbials and DBPs, the M-DBP Cluster continues to maximize drinking water quality and public health protection.

1.1.2 Development of the Stage 2 DBPR

In March 1999, EPA reconvened the M-DBP Advisory Committee to develop recommendations for the Stage 2 DBPR and LT2ESWTR. This Committee also participated in the development of the IESWTR, LT1ESWTR and Stage 1 DBPR. The Committee's members represented EPA, state, and local public health and regulatory agencies, local elected officials, Native American tribes, drinking water suppliers, chemical and equipment manufacturers, and public interest groups. Technical support for the Committee's discussions was provided by a technical workgroup established by the Committee at its first meeting. The Committee's activities resulted in the collection and evaluation of substantial new information related to key elements for both rules. This included new data on pathogenicity, occurrence, and treatment of microbial contaminants, specifically including *Cryptosporidium*, as well as new data on

DBP health risks, exposure, and control. The Committee held ten meetings (from September 1999 to July 2000), which were open to the public, to discuss issues pertaining to the Stage 2 DBPR and LT2ESWTR. There was also an opportunity for public comment at each meeting.

In September 2000, the Committee signed the Agreement in Principle, a full statement of the consensus recommendations of the group. The agreement was published in a December 29, 2000 *Federal Register* notice (65 *FR* 83015) and includes the list of committee members and their organizations. The Committee's recommendations were incorporated into the proposed Stage 2 DBPR.

The M-DBP Committee reached an agreement on the following major issues regarding the Stage 2 DBPR:

- Compliance calculation for TTHMs and HAA5s revised from an RAA to an LRAA.
- Compliance carried out in two phases of the rule.
- Performance of an IDSE.
- Continued importance of simultaneous compliance with DBP and microbial regulations.
- Unchanged MCL for bromate.

1.1.3 Benefits of the Stage 2 DBPR

1.1.3.1 Quantifiable health benefits

Although DBPs in drinking water have also been associated with non-cancerous health effects, the quantified benefits that result from the Stage 2 DBPR are associated only with estimated reductions in DBP-related bladder cancer. A complete discussion of risk assessment methodology and assumptions can be found in the Stage 2 DBPR Economic Analysis (EA) (USEPA 2003).

Overall, the Stage 2 DBPR may reduce an average of 21 to 179 bladder cancer cases per year. The present value benefits for reductions in bladder cancer that are the result of the Stage 2 DBPR range from $0 million to $986 million annualized over 20 years using a 3 percent discount rate. Using a 7 percent discount rate, the annualized present value benefits range from $0 million to $854 million.

1.1.3.2 Non-quantifiable health and non-health related benefits

Although significant benefits will result from the Stage 2 DBPR in terms of the reduction in bladder cancer, the major potential benefits of this rule remain unquantified. Two major unquantified health-related benefits are the potential reduction in adverse reproductive and developmental effects and a reduction in other cancers potentially associated with DBP exposure. Reproductive and developmental endpoints that may be associated with DBP exposure include fetal losses (miscarriage and stillbirth), neural tube defects, heart defects, and cleft palate. Although the science on reproductive and developmental health effects as a result of DBP exposure is not strong enough to include them in the primary Stage 2 DBPR analysis of benefits, the data appear to be sufficient to warrant concern. Both epidemiological and toxicological studies indicate that other cancers may be associated with DBP

exposure, but currently there is not enough data to quantify or place a monetary value on these cancer risks.

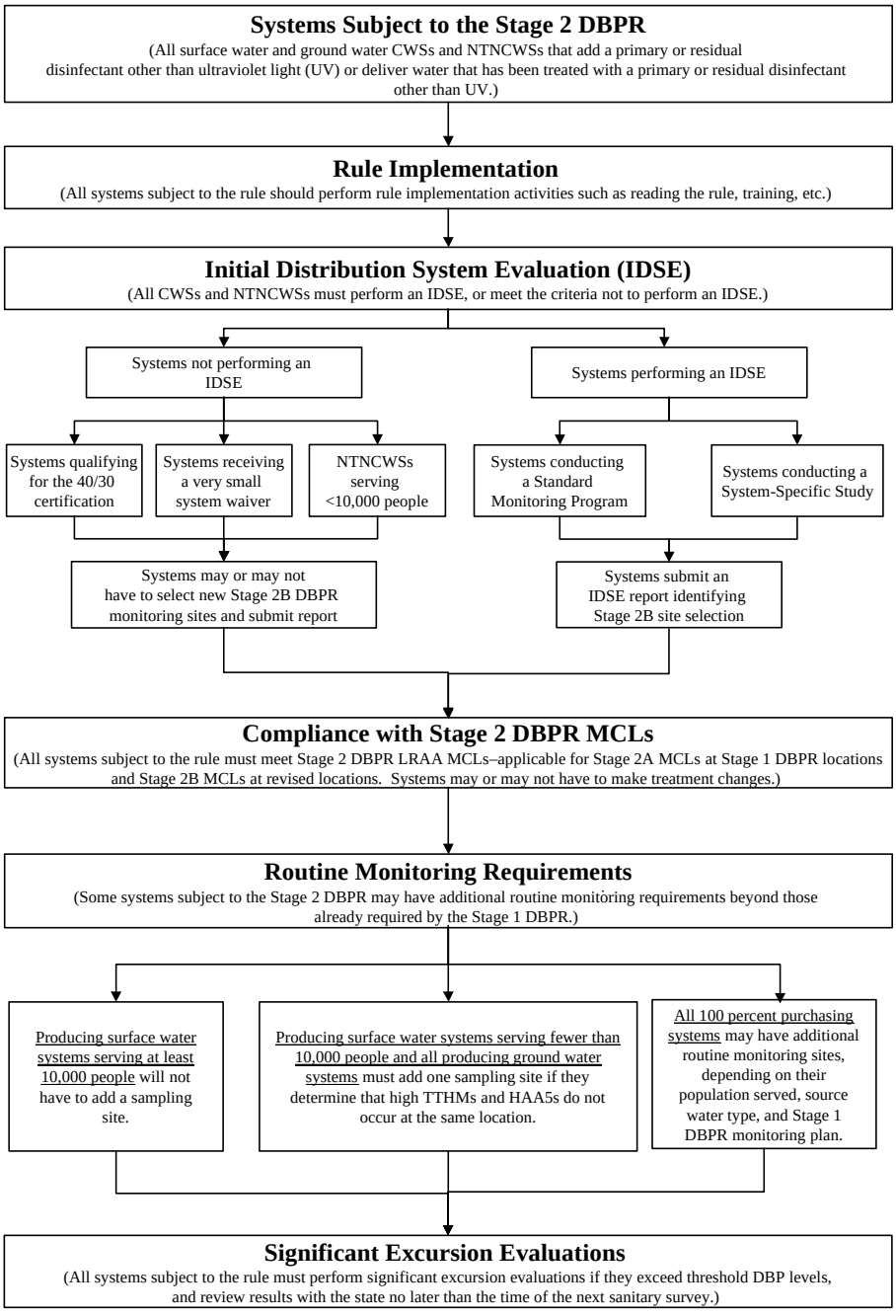
In addition to unquantified health benefits, there are many non-health benefits of the rule. The Stage 2 DBPR may increase consumer confidence in the quality of drinking water, leading to less averting behavior (e.g., boiling tap water or purchasing bottled water). Most people who switch to bottled water or use filtration devices do so because of taste and odor problems and health-related issues. Chlorine dioxide and chloramines have historically been used to address taste and odor problems. To the extent that the Stage 2 DBPR changes perceptions of the health risks associated with drinking water and improves taste and odor, it may reduce actions such as buying bottled water or installing filtration devices. Any resulting cost savings would be a regulatory benefit.

As PWSs move away from conventional treatment to more advanced technologies, other non-health benefits are anticipated. For example, chlorine dioxide is effective in controlling the spread of zebra mussels, an invasive species that has caused significant ecological damage in some U.S. waterways. In addition, installation of certain advanced technologies can remove many contaminants in addition to those specifically targeted by the Stage 2 DBPR, including those that EPA may regulate in the future. For example, membrane technology (depending on pore size), can be used to lower DBP formation, but it can also remove many other contaminants that EPA is in the process of regulating. Removal of any contaminants that may face regulation could result in future cost savings to a water system.

1.2 Requirements of the Rule: PWSs

The following section provides a summary of the rule requirements, preceded by information on new terms defined in the Stage 2 DBPR rule language. The requirements are from the proposed Stage 2 DBPR published in the *Federal Register* on August 18, 2003. For a copy of the actual rule language, see Appendix B or visit EPA's Web site at www.epa.gov/safewater/stage2/index.html.

Figure 1-1. Summary of Stage 2 DBPR Requirements for Systems



1.2.1 New Definitions in the Stage 2 DBPR

1.2.1.1 What is a combined distribution system?

The proposed §141.2 defines the combined distribution system as the interconnected distribution system of wholesale systems and of the consecutive system(s) that receive finished water from those wholesale system(s).

1.2.1.2 What is a consecutive system?

The proposed §141.2 defines a consecutive system as a PWS that buys or otherwise receives some or all of its finished water from one or more wholesale systems for at least 60 days per year. In addition to buying finished water, some consecutive systems also operate a treatment plant (meaning a plant that treats source water to produce finished water).

1.2.1.3 What is a consecutive system entry point?

The proposed §141.2 defines a consecutive system entry point as a location at which finished water is delivered at least 60 days per year from a wholesale system to a consecutive system.

1.2.1.4 What is finished water?

The proposed §141.2 defines finished water as water that has been introduced into the distribution system of a PWS and is intended for distribution without further treatment, except the level of treatment necessary to maintain water quality (such as booster disinfection). With this definition, water entering the distribution system is finished water even if a system subsequently applies additional treatment like booster disinfection to maintain a disinfectant residual throughout the distribution system.

1.2.1.5 What is a wholesale system?

The proposed §141.2 defines a wholesale system as a PWS that treats source water and then sells or otherwise delivers finished water to another PWS for at least 60 days per year. Delivery may be through a direct connection or through the distribution system of another consecutive system. Under this definition, a consecutive system that passes water from a wholesaler to another consecutive system and does not also treat source water is not a wholesale system. Rather, the system that actually produces the finished water is responsible for wholesale system requirements under the Stage 2 DBPR.

1.2.2 IDSE Requirements [proposed §141.600]

The Stage 2 DBPR establishes requirements for carrying out an IDSE. IDSEs are studies that, when used in conjunction with existing compliance monitoring, help systems identify and select future compliance monitoring sites representing high TTHM and HAA5 levels in the distribution system. This section identifies which systems are required to meet IDSE requirements, summarizes the different IDSE options, and presents IDSE reporting requirements. For more detailed information on conducting and implementing IDSEs, refer to EPA's *Draft Initial Distribution System Evaluation Guidance Manual* (EPA XXX-X-XX-XXX, Date).

1.2.2.1 Who must perform an IDSE? [proposed 141.600(b)]

Systems subject to IDSE requirements are:

- CWSs that add a primary or residual disinfectant other than UV or deliver water that has been treated with a primary or residual disinfectant other than UV; or
- NTNCWSs serving at least 10,000 people that add a primary or residual disinfectant other than UV or deliver water that has been treated with a primary or residual disinfectant other than UV.

NTNCWSs serving fewer than 10,000 people and systems serving fewer than 500 people that receive a small system waiver are not subject to IDSE provisions and do not have to submit an IDSE report. These systems do, however, have to develop and keep on file a Stage 2B monitoring plan (see section 1.2.2.3). In addition, Subpart H NTNCWSs serving from 3,301 to 9,999 have to submit their Stage 2B monitoring plan to the state. NTNCWSs serving fewer than 10,000 people, systems serving fewer than 500 people that receive a small system waiver, and systems that qualify for the 40/30 certification may still need to add or eliminate monitoring sites to meet Stage 2B requirements.

1.2.2.2 What are the options for the IDSE?

There are four options for systems that are subject to the IDSE requirements:

- Standard Monitoring Program
- System Specific Study
- 40/30 Certification
- Very Small System Waiver

Standard Monitoring Program [proposed §141.602]

The IDSE Standard Monitoring Program (SMP) entails 1 year of distribution system monitoring on a set schedule. EPA has developed two monitoring schemes for the SMP based on whether or not a system treats water:

- A plant-based approach for producing systems that is dependent on population served, source water, AND the number of plants in a system, as with Stage 1 DBPR compliance monitoring, and applies to systems that produce some or all of their own finished water. For the purpose of the Stage 2 DBPR, a plant can be either a treatment plant (that provides, at a minimum, disinfection using a disinfectant other than UV) or a consecutive system entry point that operates for at least 60 consecutive days per year.
- A population-based approach for 100 percent purchasing systems that is dependent on population served and source water and applies to only those systems that purchase 100 percent of their finished water from other systems.

Tables 1-1 and 1-2 present the IDSE SMP requirements for producing and 100 percent purchasing systems, respectively.

Systems conducting the SMP must monitor during the peak historical month for DBP levels or warmest water temperature. All IDSE samples must be taken as dual sample sets (i.e., a TTHM and a HAA5 sample will be taken at each site). The IDSE monitoring results will not be used for determining compliance with MCLs and are not required to be reported in the Consumer Confidence Report (CCR). Systems must prepare and submit a report summarizing results and justifying selection of Stage 2B compliance monitoring sites (see section 1.2.2.3 for IDSE reporting requirements).

Table 1-1. IDSE Monitoring Requirements for Producing Systems[1,2]

System Size (Population Served[3])	Residual Disinfectant	Number of Distribution System Sites (by location type) per Plant				Total Number of Sites per Plant	Monitoring Frequency[4]
		Near Entry Point	Average Residence Time	High TTHM	High HAA5		
Subpart H Systems[5]							
<500	Chlorine or Chloramines	-	-	1	1	**2**	Every 180 days
500 - 9,999	Chlorine or Chloramines	-	-	1	1	**2**	Every 90 days
≥10,000	Chlorine	1	2	3	2	**8**	Every 60 days
	Chloramines	2	2	2	2	**8**	
Ground Water Systems							
<10,000	Chlorine or Chloramines	-	-	1	1	**2**	Every 180 days
≥10,000	Chlorine or Chloramines	-	-	1	1	**2**	Every 90 days

[1] Proposed §141.602(a)

[2] For the purpose of this guidance manual, *producing systems* are those that do not buy 100 percent of their water year-round (i.e., they produce some or all of their own finished water).

[3] *Population served* is usually a system's residential population. It does not include populations served by consecutive systems that purchase water from that system.

[4] Monitoring frequency is the approximate number of days between monitoring events. A dual sample set must be collected at each location. A dual sample set is one TTHM and one HAA5 sample that is taken at the same time and location.

[5] Subpart H systems are those that use surface water or GWUDI as a source and, for the purpose of this guidance, also includes consecutive systems that deliver such water.

Table 1-2. IDSE SMP Requirements for 100 Percent Purchasing Systems[1,2]

System Size (Population Served[3])	Number of Distribution System Sites (by location type) per System				Total Number of Sites per System	Monitoring Frequency for the 1-year IDSE Period[5]
	Near Entry Point[4]	Average Residence Time	High TTHM	High HAA5		
Subpart H Systems[6]						
< 500	-	-	1	1	**2**	Every 180 days
500 - 4,999	-	-	1	1	**2**	Every 90 days
5,000 - 9,999	-	1	2	1	**4**	Every 90 days
10,000 - 24,999	1	2	3	2	**8**	Every 60 days
25,000 - 49,999	2	3	4	3	**12**	Every 60 days
50,000 - 99,999	3	4	5	4	**16**	Every 60 days
100,000 - 499,999	4	6	8	6	**24**	Every 60 days
500,000 - < 1.5 million	6	8	10	8	**32**	Every 60 days
1.5 million - < 5 million	8	10	12	10	**40**	Every 60 days
≥ 5 million	10	12	14	12	**48**	Every 60 days
Ground Water Systems						
< 500	-	-	1	1	**2**	Every 180 days
500 - 9,999	-	-	1	1	**2**	Every 90 days
10,000 - 99,999	1	1	2	2	**6**	Every 90 days
100,000 - 499,999	1	1	3	3	**8**	Every 90 days
≥ 500,000	2	2	4	4	**12**	Every 90 days

[1] Proposed §141.602(b)

[2] For the purposes of this manual, *100 percent purchasing systems* are those systems that buy or otherwise receive all of their finished water from one or more wholesale systems year-round.

[3] *Population served* is usually a system's residential population. It does not include populations served by consecutive systems that purchase water from that system.

[4] See section 8.2 for requirements when the number of entry points in a system is different from the number of required near-entry point sites in this table.

[5] Monitoring frequency is the approximate number of days between monitoring events. A dual sample set must be collected at each location. A dual sample set is one TTHM and one HAA5 sample that is taken at the same time and location.

[6] Subpart H systems are those that use surface water or GWUDI as a source and, for the purpose of this guidance, also includes consecutive systems that deliver such water.

System Specific Study [proposed §141.603(a)]

To comply with the IDSE requirement, systems may choose to perform a system-specific study (SSS) based on other monitoring studies or data. These studies must identify equivalent or superior monitoring sites representing high TTHM and HAA5 levels as would be identified by IDSE monitoring. Examples of acceptable studies include a hydraulic modeling study that simulates water movement in the distribution system or recent TTHM and HAA5 monitoring data that encompass a wide range of sample sites, including those with representative high TTHM and HAA5 concentrations. Systems must submit a report summarizing the results of their system-specific study and justifying selection of Stage 2B compliance monitoring sites (see section 1.2.2.3 for IDSE reporting requirements).

40/30 certification [proposed §141.603(b)]

Another alternative systems have for fulfilling the IDSE requirements is to demonstrate low TTHM and HAA5 distribution system concentrations by meeting the following criteria:

- All individual TTHM results (as opposed to results measured as an RAA) must be less than or equal to 0.040 mg/L.
- All individual HAA5 results (as opposed to results measured as an RAA) must be less than or equal to 0.030 mg/L.
- Results must span at least a 2-year period prior to Stage 2 DBPR site selection for Subpart H systems and must include all Stage 1 DBPR compliance monitoring results.
- TTHM and HAA5 samples must have been analyzed by a laboratory certified under the drinking water certification program to perform these measurements and using approved methods.
- For ground water systems serving 10,000 or more people with historical TTHM data but no HAA5 data, a simulated distribution systems test can be used to evaluate HAA5 concentrations. Historical TTHM data must be below 0.040 mg/L and simulated distribution system HAA5 data below 0.030 mg/L for systems to qualify.
- No TTHM or HAA5 monitoring violations during the period specified in Table 1-3.

Even though these systems are not required to perform a study or conduct additional monitoring for the IDSE, they must evaluate their existing Stage 1 DBPR sites to determine if they meet the requirements of the Stage 2 DBPR and submit an IDSE report.

Table 1-3. Compliance Monitoring Data Requirements for the 40/30 Certification[1]

Source Water Type	Population Served[2]	Regulation and Monitoring Period[3]
Subpart H	≥10,000 people	Stage 1 DBPR compliance data from January 2002 to December 2003
	<10,000 people that have a system serving ≥10,000 people in their combined distribution system[4]	Stage 1 DBPR compliance data collected in 2004
	<10,000 people that do not have a system serving ≥10,000 people in their combined distribution system[4]	Stage 1 DBPR compliance data from January 2004 to December 2005
Ground water	≥10,000 people	TTHM Rule compliance data from 2003 and Stage 1 DBPR compliance collected in 2004
	<10,000 people that have a system serving ≥10,000 people in their combined distribution system[4]	Stage 1 DBPR compliance data collected in 2004
	<10,000 people that do not have a system serving ≥10,000 people in their combined distribution system[4]	Stage 1 DBPR compliance data from January 2004 to December 2005

[1] Proposed §141.603(b)

[2] *Population served* is usually a system's retail population. It should not include populations served by consecutive systems that purchase water from that system.

[3] All data must have been analyzed by a certified laboratory and done by approved methods (as required by the Stage 1 DBPR). In addition, systems must not have had any TTHM or HAA5 monitoring violations during the period specified.

[4] A combined distribution system is the totality of the distribution system of all wholesale systems and the consecutive systems that receive finished water from the wholesale systems.

Very Small System Waiver [proposed §141.603(c)]

States can waive the IDSE requirement for systems serving fewer than 500 people that monitor for Stage 1 DBPR compliance at the maximum residence time site if the state determines that this site captures both the high TTHM and high HAA5 levels in the distribution system. Small systems are more likely than other systems to have their high TTHM and high HAA5 site in the same location. If the state has granted a very small system waiver for the IDSE, the system is not required to conduct an IDSE or submit an IDSE report.

States may decide to waive the IDSE requirement for all systems serving fewer than 500 people or some subset of all systems serving fewer than 500 people. To issue blanket waivers, states must develop a very small system waiver procedure and submit it as part of their primacy package (see section 4.4 for guidance on how to develop a very small system waiver procedure).

1.2.2.3 What are IDSE Reporting Requirements?

Who must submit an IDSE report [proposed §141.604]?

Systems performing IDSE monitoring, a system-specific study, or submitting data for the 40/30 certification must submit an IDSE report to their primacy agency for approval. Systems serving less than 500 people that receive a waiver and NTNCWSs serving fewer than 10,000 people do not have to submit an IDSE report.

When is the report due to the state [[proposed §141.600(c)]?

Table 1-4 summarizes when IDSE reports are due to the state, according to system size and source water type. For consecutive systems, the schedule for completing the IDSE depends on the population of the wholesale system (e.g., if a small water system serving fewer than 10,000 people purchases water from a large system serving 10,000 people or more, then the small system is required to comply with the schedule of the large system).

Table 1-4. IDSE Report Due Dates [proposed §141.600(c)]

IF YOU ARE THIS TYPE OF SYSTEM	YOU MUST SUBMIT YOUR IDSE REPORT TO THE STATE BY[1]
Subpart H serving ≥10,000	[insert date 24 mos following publication]
Subpart H serving <10,000	[insert date 48 mos following publication][2]
Groundwater serving ≥10,000	[insert date 24 mos following publication]
Groundwater serving <10,000	[insert date 48 mos following publication][2]
Consecutive system	At the same time as the system with the earliest compliance date in the combined distribution system [3]

[1] Systems that meet the 40/30 certification criteria in proposed §141.603(b) are encouraged to submit their IDSE report as soon as the certification criteria are met.
[2] Systems must comply by [insert date 24 mos following publication] if they are a wholesale system and any system in the combined distribution system serves at least 10,000 people. Systems must comply by [insert date 48 mos following publication] if no system in the combined distribution system serves at least 10,000 people.
[3] Systems must comply by [insert date 24 mos following publication] if any system in the combined distribution system serves at least 10,000 people. Systems must comply by [insert date 48 mos following publication] if no system in the combined distribution system serves at least 10,000 people.

What must the IDSE report include [proposed §141.604]?

For systems conducting the SMP, the IDSE report must include:

- Additional data used to select IDSE monitoring sites.
- The original IDSE monitoring plan and an explanation of any deviations from that plan.

- All IDSE TTHM and HAA5 analytical results in a tabular or spreadsheet format (for systems that conduct IDSE monitoring).
- A schematic of the distribution system (with Stage 1 and IDSE monitoring results, location, and date of all samples noted).
- Recommendations for TTHM and HAA5 Stage 2B DBPR compliance monitoring sites.
- Recommendations for months in which TTHM and HAA5 monitoring will occur.
- System characteristics (e.g., system type, population served, whether the system is a consecutive system, number of treatment plants and consecutive system entry points for systems conducting plant-based monitoring).

For systems conducting the SSS, the IDSE report must include:

- Studies, reports, data, analytical results, and/or modeling demonstrating that the recommended monitoring sites representing high TTHM and HAA5 levels are comparable or superior to those that would otherwise have been identified by IDSE monitoring.
- An analysis demonstrating that the SSS characterized expected TTHM and HAA5 levels throughout the entire distribution system.
- A schematic of the distribution system (with Stage 1 and IDSE monitoring results, location, and date of all samples noted).
- Recommendations for TTHM and HAA5 Stage 2B DBPR compliance monitoring sites.
- Recommendations for months in which TTHM and HAA5 monitoring will occur.
- System characteristics (e.g., system type, population served, whether the system is a consecutive system, number of treatment plants and consecutive system entry points for systems conducting plant-based monitoring).

Systems with an under 40/30 certification must include:

- Data demonstrating that all samples are less than or equal to 0.040 mg/L TTHM and 0.030 mg/L HAA5 (for systems that qualify for the 40/30 waiver).
- A schematic of the distribution system (with Stage 1 monitoring results, location, and date of all samples noted).
- Recommendations for TTHM and HAA5 Stage 2B DBPR compliance monitoring sites.
- Recommendations for months in which TTHM and HAA5 monitoring will occur.

- System characteristics (e.g., system type, population served, whether the system is a consecutive system, number of treatment plants and consecutive system entry points for systems conducting plant-based monitoring).

How long must the IDSE report be retained?

Systems must retain a complete copy of the IDSE report for 10 years after the date it was submitted. If the state modifies the monitoring requirements or approves alternative monitoring sites, systems must keep a copy of the state's notification on file for 10 years after the date of notification. The IDSE report and any state notification must be available for review by the state or the public.

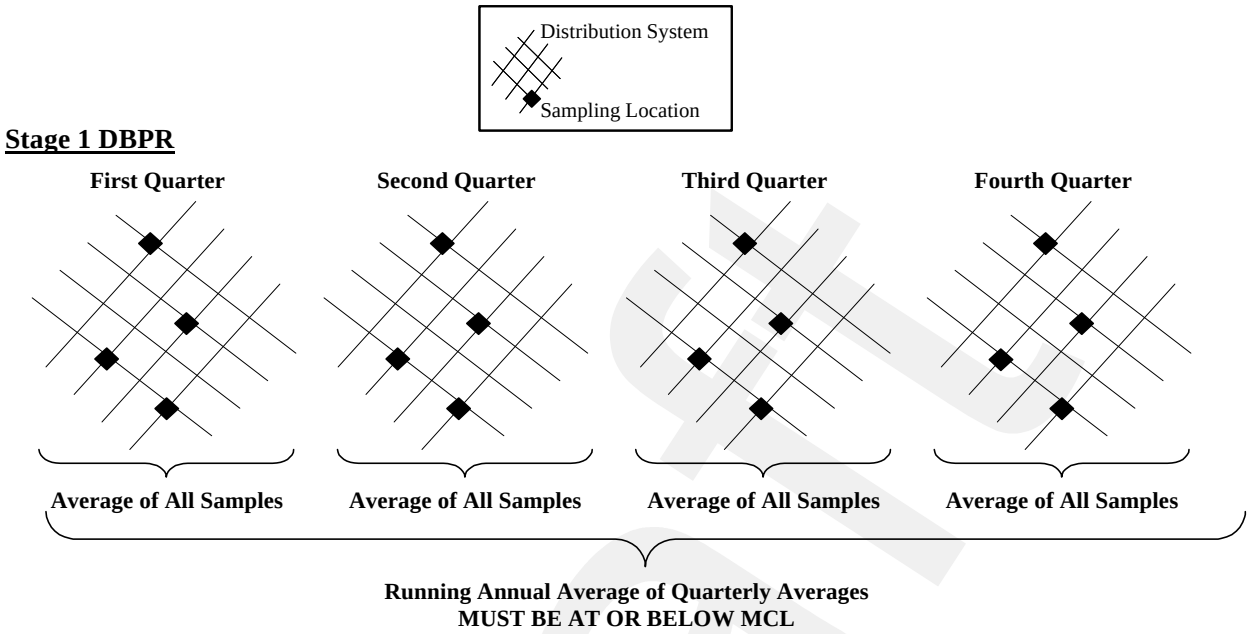
1.2.3 MCL Requirements

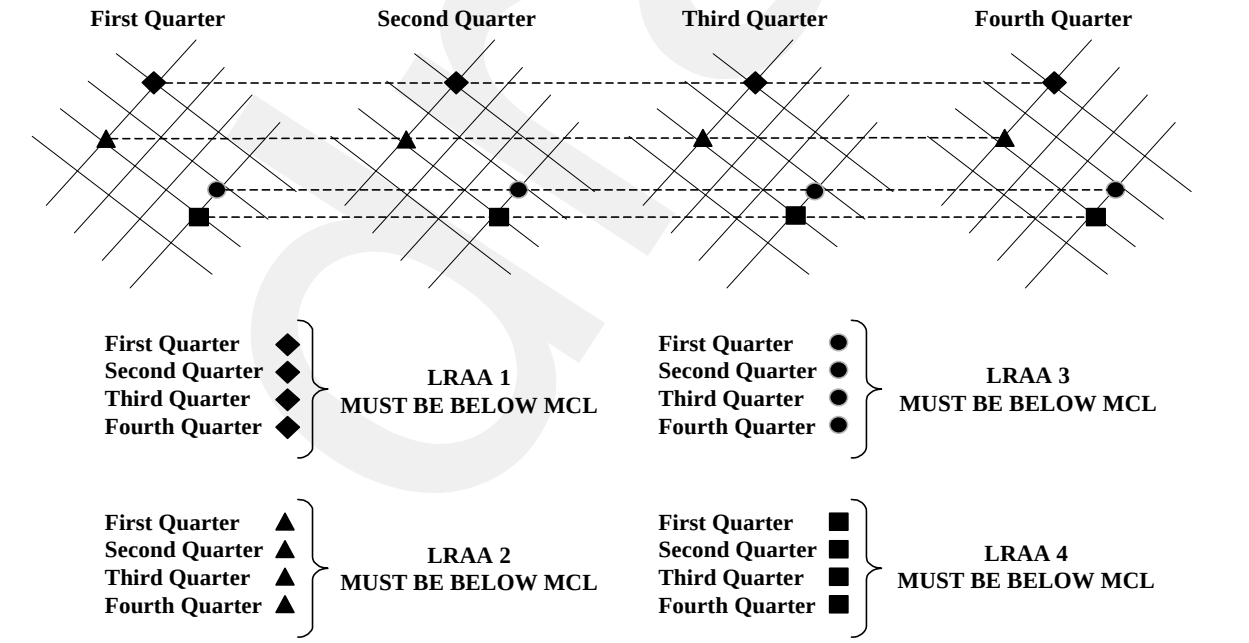
The Stage 2 DBPR changes the way sampling results are averaged to determine compliance with MCLs. The determination for the Stage 2 DBPR is based on a LRAA instead of the system-wide RAA used under the Stage 1 DBPR. The primary objective of the LRAA is to reduce exposure to high DBP levels. For an LRAA, an annual average must be computed at each monitoring site. The RAA compliance basis of the 1979 TTHM Rule and the Stage 1 DBPR allows a system-wide annual average under which high DBP concentrations in one or more locations are averaged with, and dampened by, lower concentrations elsewhere in the distribution system. Figure 1-2 illustrates the difference in calculating compliance with the MCLs for TTHM between a Stage 1 DBPR RAA and the Stage 2 DBPR LRAA.

The Stage 2 DBPR will be implemented in two stages, Stage 2A and Stage 2B. Stage 2A provides systems with transitional MCLs (in addition to the current Stage 1 DBPR MCLs) to allow them more time to comply with the more stringent Stage 2B MCLs. Consecutive systems must comply with the same MCLs for TTHM and HAA5 as CWSs and NTNCWSs subject to the Stage 2 DBPR. The next two sections describe the MCLs for Stage 2A and Stage 2B, followed by an explanation of compliance deadlines.

Note that the Stage 1 DBPR MCL for bromate remains at 0.010 mg/L, measured as an RAA, in the Stage 2 DBPR.

Figure 1-2. Comparison of RAA and LRAA Compliance Calculations[1]





[1]Stage 2 DBPR sampling locations will be selected based on the results of an IDSE study and may occur at locations different from Stage 1 DBPR sampling sites.

1.2.3.1 What are the Stage 2A MCLs? [proposed §141.136]

For Stage 2A, systems will not be required to conduct any new monitoring. Systems must continue to monitor for TTHM and HAA5 at the locations required under the Stage 1 DBPR (see 40 CFR 141.132). Using these monitoring results, systems must continue to demonstrate compliance with Stage 1 DBPR MCLs of 0.080 mg/L for TTHM and 0.060 mg/L for HAA5, based on a RAA (see 40 CFR 141.133).

In addition, systems must comply with the Stage 2A MCLs of 0.120 mg/L for TTHM and 0.100 mg/L for HAA5, based on an LRAA calculated from data at each Stage 1 DBPR monitoring location. Stage 1 DBPR provisions for systems to reduce the frequency of TTHM and HAA5 will still apply.

Stage 2A will primarily affect surface water systems serving at least 10,000 people or systems with multiple plants because these systems are required to monitor at more than one location in the distribution system. Most other systems take compliance samples at only one location under the Stage 1 DBPR and in these cases, the calculated LRAA will equal the RAA.

1.2.3.2 What are the Stage 2B MCLs? [proposed §141.620]

For Stage 2B, systems must comply with MCLs of 0.080 mg/L and 0.060 mg/L as LRAAs for TTHM and HAA5, respectively, based at monitoring at locations identified in their monitoring plans (see section 1.2.4 for a discussion of Stage 2B monitoring plans and routine monitoring requirements).

1.2.3.3 What are the compliance deadlines for Stage 2A and Stage 2B?

Table 1-5 summarizes the compliance deadlines for Stage 2A and Stage 2B.

Table 1-5. Compliance Schedule for Stage 2A and Stage 2B

IF YOU ARE THIS TYPE OF SYSTEM	YOU MUST COMPLY WITH STAGE 2A BY:	YOU MUST COMPLY WITH STAGE 2B BY [1]:
Subpart H serving ≥10,000	[date 36 months following publication of final rule]	[insert date 72 mos following publication]
Subpart H serving <10,000	[date 36 months following publication of final rule]	[insert date 90 mos following publication] if no *Cryptosporidium* monitoring is required under proposed §141.706(c) OR [insert date 102 mos following publication] if *Cryptosporidium* monitoring is required under proposed §141.706(c)
Groundwater serving ≥10,000	[date 36 months following publication of final rule]	[insert date 72 mos following publication]
Groundwater serving <10,000	[date 36 months following publication of final rule]	[insert date 90 mos following publication]
Consecutive system	[date 36 months following publication of final rule]	At the same time as the system with the earliest compliance date in the combined distribution system

[1] The state may grant up to an additional 24 months for compliance for systems that require capital improvements.

1.2.3.4 What are the new MCLGs? [proposed §141.53]

The Stage 2 DBPR includes new MCLGs for chloroform, monochloroacetic acid (MCAA), and trichloroacetic acid (TCAA), but these new MCLGs do not affect the MCLs for TTHM or HAA5. Table 1-6 summarizes the new MCLGs.

Table 1-6. Summary of Stage 2 DBPR MCLGs

Contaminant	MCLG (mg/L)
Chloroform	0.07
MCAA	0.03
TCAA	0.02

1.2.4 Stage 2B Compliance Monitoring [proposed §141.621]

As noted previously, systems will continue to monitor at their Stage 1 DBPR compliance monitoring locations for the Stage 2A DBPR; however, monitoring location requirements for Stage 2B may change. This section summarizes the requirements for Stage 2B long-term compliance monitoring, required contents of the Stage 2B monitoring plan, reduced monitoring, and special issues for consecutive systems.

1.2.4.1 What are Stage 2B compliance monitoring requirements?

As with the IDSE monitoring, EPA has developed two monitoring schemes based on whether or not a system treats water:

- A plant-based approach for producing systems that is dependent on population served, source water, AND the number of plants in a system, as with Stage 1 DBPR compliance monitoring, and applies to systems that produce some or all of their own finished water. For the purpose of the Stage 2 DBPR, a plant can be either a treatment plant (that provides, at a minimum, disinfection using a disinfectant other than UV) or a consecutive system entry point that operates for at least 60 consecutive days per year.

- A population-based approach for 100 percent purchasing systems that is dependent on population served and source water and applies to only those systems that purchase 100 percent of their finished water from other systems.

Tables 1-7 and 1-8 show the Stage 2B compliance monitoring requirements for producing and 100 percent purchasing systems, respectively. For 100 percent purchasing systems, monitoring requirements are no longer based on the number of plants, as was the case under the Stage 1 DBPR; therefore, the number of sampling sites may increase or decrease from Stage 1 to Stage 2 DBPR. Stage 2B compliance monitoring requirements will be similar to the Stage 1 DBPR requirements for most producing systems.

If a system is required to conduct quarterly monitoring, it must begin monitoring in the first full calendar quarter that follows the compliance date in Table 1-5. If the system is required to conduct monitoring at a frequency that is less than quarterly, it must begin monitoring in the calendar month recommended in the IDSE report no later than 12 months after the compliance date in Table 1-5. If the system is not required to submit an IDSE report, it must begin monitoring during the calendar month identified in the monitoring plan no later than 12 months after the compliance date.

Table 1-7. Stage 2B Compliance Monitoring Requirements for Producing Systems[1,2]

System Size (Population Served[3])	Number of Distribution System Sites (by location type) per Plant[4]			Total Number of Sites per Plant	Monitoring Frequency[5]
	Stage 1 Average Residence Time Site	Highest TTHM	Highest HAA5		
Subpart H Systems[6]					
< 500	-	1	1	**2**[7]	Every 365 days
500 - 9,999	-	1	1	**2**	Every 90 days
≥ 10,000	1	2	1	**4**	Every 90 days
Ground Water Systems					
< 500	-	1	1	**2**[7]	Every 365 days
500 - 9,999	-	1	1	**2**	Every 365 days
≥ 10,000	-	1	1	**2**	Every 90 days

[1] Proposed §141.605(a)

[2] For the purpose of this guidance manual, *producing systems* are those that do not buy 100 percent of their water year-round (i.e., they produce some or all of their own finished water).

[3] *Population served* is typically a system's retail population. It should not include populations served by consecutive systems that purchase water from that system.

[4] For the purposes of the Stage 2 DBPR compliance monitoring, a consecutive system entry point that operates for at least 60 consecutive days per year must be considered a plant (proposed §141.601(d)).

[5] Monitoring frequency is the approximate number of days between monitoring events. A dual sample set must be collected at each location, unless otherwise noted. A dual sample set is one TTHM and one HAA5 sample that is taken at the same time and location.

[6] Subpart H systems are those that use surface water or GWUDI as a source and, for the purpose of this guidance, also includes consecutive systems that deliver such water.

[7] Dual sample sets are not required at both the high TTHM and the high HAA5 site—if the highest TTHM and HAA5 levels occur at a different location, then only one sample is collected at each location. If they occur at the same location, then a dual sample set is collected at that location.

Table 1-8. Stage 2B Population-based Compliance Monitoring Requirements for 100 Percent Purchasing Systems[1,2]

System Size (Population Served[3])	Number of Distribution System Sites (by location type) per System			Total Number of Sites per System	Monitoring Frequency[4]
	Stage 1 Average Residence Time Site	Highest TTHM	Highest HAA5		
Subpart H Systems[5]					
< 500	-	1	1	**2**[6]	Every 365 days
500 - 4,999	-	1	1	**2**[6]	Every 90 days
5,000 - 9,999	-	1	1	**2**	Every 90 days
10,000 - 24,999	1	2	1	**4**	Every 90 days
25,000 - 49,999	1	3	2	**6**	Every 90 days
50,000 - 99,999	2	4	2	**8**	Every 90 days
100,000 - 499,999	3	6	3	**12**	Every 90 days
500,000 - 1,499,999	4	8	4	**16**	Every 90 days
1.5 million - < 5 million	5	10	5	**20**	Every 90 days
≥ 5 million	6	12	6	**24**	Every 90 days
Ground Water Systems					
< 500	-	1	1	**2**[6]	Every 365 days
500 - 9,999	-	1	1	**2**	Every 365 days
10,000 - 99,999	1	2	1	**4**	Every 90 days
100,000 - 499,999	1	3	2	**6**	Every 90 days
≥ 500,000	2	4	2	**8**	Every 90 days

[1] Proposed §141.605(e)

[2] For the purpose of this guidance manual, *100 percent purchasing systems* are those systems that buy or otherwise receive all of their finished water from one or more wholesale systems year-round.

[3] *Population served* is typically a system's retail population. It should not include populations served by consecutive systems that purchase water from that system.

[4] Monitoring frequency is the approximate number of days between monitoring events. A dual sample set must be collected at each location, unless otherwise noted. A dual sample set is one TTHM and one HAA5 sample that is taken at the same time and location.

[5] Subpart H systems are those that use surface water or GWUDI as a source and, for the purpose of this guidance, also includes consecutive systems that deliver such water.

[6] Dual sample sets are not required at both the high TTHM and the high HAA5 site—if the highest TTHM and HAA5 levels occur at a different location, then only one sample is collected at each location. If they occur at the same location, then a dual sample set is collected at that location.

1.2.4.2 What are the requirements for developing a Stage 2B monitoring plan? [proposed §141.622]

All systems must develop compliance monitoring plans for the Stage 2B DBPR. The plans must contain the following information on systems:

- Monitoring locations;
- Monitoring dates;
- Compliance calculation procedures;
- Monitoring plans for other systems in the combined distribution system if monitoring requirements have been modified based on data from other systems; and
- Permits, contracts, or agreements with third parties (e.g., other PWSs, laboratories, and state agencies).

Monitoring plans should be developed based on the IDSE report along with any modifications mandated by the state. Systems are required to submit copies of their monitoring plans to the state prior to the date they have to begin complying with the Stage 2B DBPR (as shown in Table 1-4).

1.2.4.3 How do systems qualify for reduced Stage 2B monitoring? [proposed §141.623]

Producing systems

Subpart H systems serving at least 10,000 people can qualify for reduced monitoring by meeting the following criteria:

- Complete 1 year of routine monitoring.
- Maintain TTHM and HAA5 LRAAs of no more than 0.040 mg/L and 0.030 mg/L, respectively.
- Maintain TOC levels of 4.0 mg/L or less in source water, measured as an RAA.

Subpart H systems serving 500 to 9,999 people and all ground water systems can quality for reduced monitoring by meeting the first two provisions listed above (the requirement for maintaining TOC levels of 4.0 mg/L or less only applies to subpart H systems serving at least 10,000 people). Reduced monitoring is not available for Subpart H systems serving fewer than 500 people since monitoring for these systems may not be reduced to fewer than one TTHM and one HAA5 sample per year.

100 percent purchasing systems

Consecutive systems that buy or receive all of their finished water can quality for reduced monitoring if they complete one year of Stage 2B monitoring and show that the LRAA is less than 0.040 mg/L for TTHM and less than 0.030 mg/L for HAA5 at all monitoring locations.

1.2.4.4 How are monitoring requirements determined for consecutive systems?

The TTHM and HAA5 sampling requirements for consecutive systems will be influenced by the number of treatment plants operated by the system, the number of consecutive system entry points, the population served, and the source water type.

- For consecutive systems that buy all of their water (i.e., 100 percent purchasing systems), monitoring requirements will be based on population served and source water type but not the number of plants in the system. Therefore, the number of sampling sites for routine monitoring could either increase or decrease from the Stage 1 DBPR to the Stage 2 DBPR.

- For consecutive systems that both buy finished water and treat source water to produce finished water for at least part of the year, monitoring requirements will be based on the number of treatment plants in the system (similar to the approach for non-consecutive systems). In these cases, consecutive system entry points (defined as locations at which finished water is delivered at least 60 days per year) are considered "plants" for the purposes of monitoring. Note that under the IDSE, a system may have consecutive system entry points that are NOT considered plants because they do not deliver finished water for 60 consecutive days (proposed §141.601(d)(2) and §141.602(a)). While the Stage 2B monitoring requirements do not explicitly state that these 60 days must be consecutive, EPA expects that the Stage 2B monitoring would follow the same interpretation since monitoring locations are based on those derived under the IDSE. EPA is looking into this discrepancy in proposed regulatory language since an interpretation that a consecutive system entry point is a location at which finished water is delivered for 60 consecutive days would be less stringent than the proposed definition at §141.2 which simply states "at least 60 days per year."

States may specify alternative monitoring requirements for more complex multiple consecutive systems in combined distribution systems. EPA is preparing a draft guidance manual for consecutive systems to address these and other issues. See section 1.2.6 for chlorine and chloramine monitoring requirements for consecutive systems.

1.2.5 Significant Excursion Evaluations [proposed §141.626]

Because Stage 2 DBPR TTHM and HAA5 MCL compliance is based on an annual average of DBP measurements at each location, a system may have DBP levels significantly higher than the MCL from time to time (referred to as a significant excursion) while still being in compliance. This situation is a result of high concentrations being averaged with lower concentrations at a given location. Each state will determine its own procedure for systems to identify significant excursions. (see section 4.4.5)

If a significant excursion occurs, a system (including a consecutive system) must conduct a significant excursion evaluation and discuss the evaluation with the state no later than the next sanitary survey. This evaluation involves examining distribution operational practices and identifying opportunities to reduce DBP concentrations in the distribution system. For more detailed information on significant excursion evaluations, refer to EPA's *Draft Significant Excursions Guidance Manual* (EPA 815-D-03-004, July 2003)

1.2.6 Chlorine and Chloramine requirements [proposed §141.624]

Consecutive systems that do not add a disinfectant but deliver water that has been treated with a disinfectant other than UV, must comply with the Stage 1 DBPR monitoring, compliance, and reporting requirements for chlorine and chloramines (40 CFR 141.132(c)(1), 141.133(c)(1), and 141.134(c) respectively) beginning [date 3 years after publication of final rule], unless required earlier by the state.

1.2.7 Analytical Requirements [proposed §141.131]

New analytical methods for chlorine dioxide, chlorite, HAA5, bromate, bromide, TOC, DOC, SUVA, chlorine (free, combined, and total), and UV^{254} will be added. Many of these new methods can also be used to determine additional parameters such as dalapon, fluoride, nitrate, nitrite, chloride, sulfate, and orthosulfate.

In addition, appropriate methods to demonstrate compliance with the Stage 1 DBPR alternative compliance criteria of magnesium hardness removal (40 CFR 141.135(a)(3)(ii)) are clarified.

1.2.8 Bromate Requirements [proposed §141.132]

Systems that must monitor for bromate under the Stage 1 DBPR because they use ozone will have a new criterion to meet in order to qualify for reduced bromate monitoring. Instead of low source water bromide levels, systems must have an RAA finished water bromate level that does not exceed 0.0025 mg/L.

1.2.9 Recordkeeping/Reporting Requirements [proposed §141.33, §141.630]

Systems must keep copies of Stage 2B monitoring plans for the same period of time as the records of analyses are required to be kept (i.e., for at least 5 years) or for 3 years after modifying them, whichever is longer. In addition, the Stage 2 DBPR revises the system recordkeeping requirements in 40 CFR 141.33, clarifying the requirement that systems must maintain records of monitoring plans submitted until superceded by a new system monitoring plan. Systems must report the following information for each monitoring location to the state within 10 days of the end of any quarter in which monitoring is required:

- Number of samples taken during the last quarter.
- Date and results of each sample taken during the last quarter.
- Arithmetic averages of quarterly results for the last four quarters (RAAs for TOCs and LRAAs for DBPs).
- Whether an MCL was violated.

Subpart H systems seeking to qualify for or remain on reduced TTHM/HAA5 monitoring must report the following source water TOC information for each treatment plant that treats surface water or GWUDI to the state within 10 days of the end of any quarter in which monitoring is required:

- The number of source water TOC samples taken each month during the last quarter.
- The location, date, and result of each sample taken during the last quarter.
- The quarterly average of monthly samples taken during the last quarter.
- The RAA of quarterly averages from the past four quarters.
- Whether the RAA exceeded 4.0 mg/L.

1.2.9.1 What reporting and recordkeeping requirements apply to consecutive systems?

Consecutive systems have the same reporting and recordkeeping requirements as other systems affected by the Stage 2 DBPR. In addition, they are required to conduct appropriate public notification after a violation (whether in the wholesale system or the consecutive system). In their CCR, consecutive systems must include results of testing conducted by the wholesale system unless the consecutive system conducted equivalent testing that indicated it was in compliance. In this case, the consecutive system reports its own compliance monitoring results. EPA is preparing a draft guidance manual for consecutive systems to address these and other issues.

1.2.10 Public Notification of Drinking Water Violations [proposed §141 Subpart Q, Appendix A]

Under the Stage 2 DBPR, violations require either a Tier 2 or Tier 3 notification. Tier 2 public notification is required for violations of TTHM or HAA5 RAA or LRAAs MCLs. Tier 3 public notification of monitoring violations is required for failure to:

- Monitor for or report TTHM and HAA5 RAAs and LRAAs.
- Prepare an IDSE monitoring plan.
- Maintain copies of the monitoring plan.
- Return from reduced to routine monthly bromate monitoring if:
  - The RAA of bromide concentration is 0.05 mg/L or greater (until 3 years after rule publication).
  - The RAA of bromate exceeds 0.0025 mg/L or if samples were not analyzed using an acceptable method (beginning 3 years after rule publication).

1.2.11 CCR Requirements

The CCR Rule requires that all detected regulated contaminants be reported in the annual reports. Since detection is not defined for DBP contaminants, the Stage 2 DBPR requires reporting limits for the regulated DBPs. EPA is proposing to incorporate minimum reporting level (MRL) requirements into the

laboratory certification program for DBPs and to use regulatory MRLs as the minimum concentrations that must be reported as part of the CCRs (proposed §141.151(d)).

When compliance with the MCL is determined by calculating an RAA of all samples taken at a sampling point, the highest average of any of the sampling points and the range of all sampling points are expressed in the same units as the MCL. When compliance with the MCL is determined by calculating an LRAA, systems must include the highest LRAA for TTHM and HAA5 and the range of individual sample results for all sampling points expressed in the same units as the MCL. If more than one site exceeds the MCL, the system must include the LRAA for all sites that exceed the MCL.

When compliance with the MCL is determined on a system-wide basis by calculating an RAA of all samples at all sample points, system must include the average and range of detection expressed in the same units as the MCL. The system is not required to include the range of individual sample results for the IDSE conducted.

Responsibility for the CCR rests with the individual system. Under the CCR Rule, the wholesale system is responsible for notifying the consecutive system of analytical results and violations related to monitoring conducted by the wholesale system. Consecutive systems must include analytical results of the wholesale system in their CCR, unless the consecutive system conducted equivalent testing demonstrating that it was in compliance. In the latter case, the consecutive system must report its own compliance monitoring results.

1.3 Requirements of the Rule: States or Other Primacy Agencies

1.3.1 Special Primacy Requirements [proposed §142.16]

To receive primacy for the Stage 2 DBPR, states must adopt regulations no less stringent than this rule. States must submit revisions to their programs, regulations, or authorities no later than [insert date 2 years after rule publication], although states can request an extension of up to 2 years.

Some provisions of the Stage 2 DBPR allow state discretion in establishing decision-making criteria. The five main provisions for which states must make a timely decision on what they will require of systems are (proposed §142.16):

- States that intend to use the authority to grant blanket waivers for IDSE requirements to very small systems (serving less than 500 people) must comply with special primacy provisions for granting such waivers.

- States must develop a procedure for evaluating system-specific studies if system-specific studies are conducted in the state.

- States must establish a procedure for determining that multiple consecutive system entry points from a single wholesale system to a single consecutive system should be treated as a single treatment plant for monitoring purposes.

- States that intends to use the authority to specify alternative monitoring requirements for consecutive systems in a combined distribution system must include a description of how they intend to implement that authority.

- States must establish criteria for determining when a significant excursion has occurred.

The special primacy requirements for the Stage 2 DBPR address these discretionary items and are discussed in section 4.4 of this guidance.

1.3.2 Records Kept by States [proposed §142.14]

The current regulations in 40 CFR 142.14 require states with primacy to keep various records, including system inventories, state approvals, enforcement actions, the issuance of exemptions, and analytical results, to determine compliance with MCLs, MRDLs, and treatment technique requirements.

The Stage 2 DBPR requires that the state keep records related to any decisions made pursuant to the IDSE (proposed §141.600-§141.605) and Stage 2B DBP requirements (proposed §141.620-§141.630). In addition, states must keep records of:

- Very small system waivers for those systems for which the state has determined that the Stage 1 DBPR (40 CFR §141.130–§141.135) approved monitoring site is representative of the highest TTHM and HAA5 sites.

- System IDSE reports (reports must be kept until reversed or revised in their entirety).

- Documentation of any modifications made.

- Monitoring plans submitted by PWSs until superceded by a new system monitoring plan.

1.3.3 State Reporting Requirements

EPA currently requires states to report information such as violations, variance and exemption status, and enforcement actions to EPA under 40 CFR 142.15. The Stage 2 DBPR will not add any additional reporting requirements for states.

1.4 Summary of Action Dates

1.4.1 Applicability and Compliance Dates

Table 1-9 summarizes key compliance dates required (**bold**) by the Stage 2 DBPR as well as suggested action dates (shaded). The compliance dates are designed to allow for systems to simultaneously comply with the LT2ESWTR in order to balance risks in the control of DBPs versus risks associated microbial pathogens.

Table 1-9. Summary of Action Dates for the Stage 2 DBPR

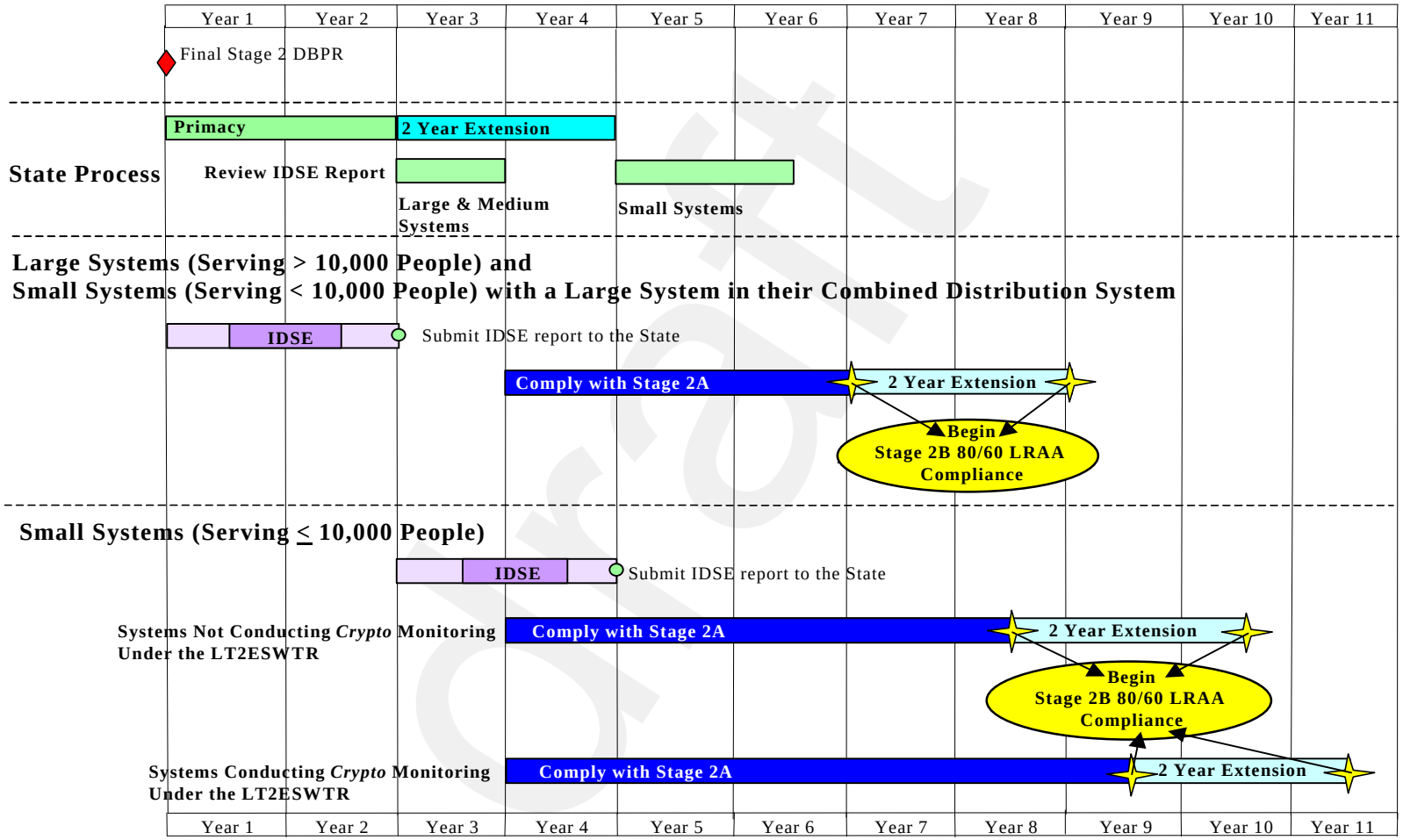
Date	Stage 2 DBPR Action
[Insert date of rule publication]	Final rule is published in *Federal Register*.
	States are encouraged to begin identifying affected systems
	States are encouraged to begin updating their data management system.
	States are encouraged to begin determining how they will address special primacy conditions of the rule related to (1)IDSE waiver for systems serving fewer than 500 people, (2) System-specific studies for the IDSE, (3)Multiple consecutive system entry points from the same wholesale system, (4) Consecutive system monitoring, and (5) significant excursions.
	States are encourages to begin coordinating with EPA and communicating with systems regarding the IDSE requirements.
3 months after rule promulgation [Insert Date].	States are encouraged to communicate with affected systems regarding Stage 2 DBPR requirements.
6 months after rule promulgation [Insert Date].	Systems serving ≥10,000 and wholesale systems with a system in the combined distribution system that serves at least 10,000 people are encouraged to begin conducting their IDSE.
21 months after rule promulgation [Insert Date].	States are encouraged to submit final primacy applications or extension requests to EPA.
24 months after rule promulgation [Insert Date].	States should begin reviewing and approving IDSE reports for Subpart H and groundwater systems serving 10,000 or more people and wholesale and/or consecutive systems if part of a combined system of 10,000 or more people.
No later than 24 months after rule promulgation [Insert Date].	**Final primacy applications must be submitted to EPA, unless granted an extension. [proposed §142.12(b)(1)]**
	Subpart H and groundwater systems serving 10,000 or more people and smaller wholesale and/or consecutive systems if part of a combined system of 10,000 or more people must submit IDSE reports to the state. [proposed §141.604]
30 months after rule promulgation [Insert Date].	Systems serving <10,000 are encouraged to begin conducting their IDSE.
No later than 36 months after rule promulgation [Insert Date].	**All systems must comply with Stage 2A transitional LRAA MCLs for TTHM and HAA5. [proposed §141.136]**
	All 100 percent purchasing systems must monitor for chlorine and chloramines as specified under the Stage1 DBPR. [proposed §141.624]
45 months after rule promulgation [Insert Date].	States with approved extension agreements are encouraged to submit final primacy applications to EPA.

Date	Stage 2 DBPR Action
48 months after rule promulgation [Insert Date].	States should begin reviewing and approving IDSE reports for Subpart H and groundwater systems serving fewer than 10,000 people.
No later than 48 months after rule promulgation [Insert Date].	**Final primacy applications must be submitted to EPA for systems with a full 2 year extension. [proposed §142.12(b)(1)]**
	Subpart H and groundwater systems serving fewer than 10,000 people must submit IDSE reports to the state. [proposed §141.604]
60 months after rule promulgation [Insert Date].	States should begin determining whether to grant up to a 2-year extension for systems requiring capital improvements to meet Stage 2B
72 months after rule promulgation [Insert Date].	States should begin reviewing and approving monitoring plans for Subpart H and groundwater systems serving 10,000 or more people and wholesale and/or consecutive systems if part of a combined system of 10,000 or more people.
No later than 72 months after rule promulgation [Insert Date].	**Subpart H and groundwater systems serving 10,000 or more people and smaller wholesale and/or consecutive systems if part of a combined system of 10,000 or more people must submit a monitoring plan and comply with Stage 2B LRAA MCLs for TTHM and HAA5. [proposed §141.620]**
90 months after rule promulgation [Insert Date].	States should begin reviewing and approving monitoring plans for Subpart H and groundwater systems serving fewer than 10,000 people that do not have to perform *Cryptosporidium* monitoring under LT2ESWTR.
No later than 90 months after rule promulgation [Insert Date].	**Subpart H and groundwater systems serving fewer than 10,000 people that do not have to perform *Cryptosporidium* monitoring under LT2ESWTR must submit a monitoring plan and comply with Stage 2B LRAA MCLs for TTHM and HAA5. [proposed §141.620]**
102 months after rule promulgation [Insert Date].	States should begin reviewing and approving monitoring plans for Subpart H and groundwater systems serving fewer than 10,000 people that have to perform *Cryptosporidium* monitoring under LT2ESWTR.
No later than 102 months after rule promulgation [Insert Date].	**Subpart H and groundwater systems serving fewer than 10,000 people that have to perform *Cryptosporidium* monitoring under LT2ESWTR must submit a monitoring plan and comply with Stage 2B LRAA MCLs for TTHM and HAA5. [proposed §141.620]**

1.4.2 Timeline for the Stage 2 DBPR

Figure 1-3 depicts the Stage 2 DBPR requirements and implementation timeline for states and systems.

Figure 1-3. Implementation Timeline for the Stage 2 DBPR



References

Barwick, R.S., D.A. Levy, G.F. Craun, M.J. Beach, and R.L. Calderon. 2000. Surveillance for waterborne-disease outbreaks - United States, 1997-1998. *Morbidity and Mortality Weekly Report* 49(SS04):1-35.

Craun, F. and R. Calderon. 1996. Microbial risks in groundwater systems: Epidemiology of waterborne outbreaks. Under the Microscope: Examining microbes in groundwater. Proceedings of the Groundwater Foundation's 12th Annual Fall Symposium, Boston. September.

Levy, D.A., M.S. Bens, G.F. Craun, R.L. Calderon, and B.L. Herwaldt. 1998. Surveillance for Waterborne Disease Outbreaks - United States, 1995-1996. *MMWR* 47(55-5):1-34.

Mac Kenzie, W.R., N.J. Hoxie, M.E. Proctor, M.S. Gradus, K.A. Blair, D.E. Peterson, J.J. Kazmierczak, D.A. Addiss, K.R. Fox, J.B. Rose, and J.P. Davis. 1994. A massive outbreak of *Cryptosporidium* infection transmitted through the public water supply. *New England Journal of Medicine* 331(3):161-167.

USEPA. 2003. Economic Analysis for the Proposed Stage 2 DBPR. Washington, DC. Prepared by The Cadmus Group.

Section 2

Resources and Guidance

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In addition to this draft Implementation Guidance, a variety of resource materials and technical guidance documents have been prepared by EPA to facilitate understanding and implementing the Stage 2 DBPR. This section is an overview of each of these resources and includes instructions on how to obtain the documents.

2.1 Technical Guidance Manuals

The following five technical guidance manuals are being developed to support the Stage 2 DBPR. These draft manuals will aid EPA, state agencies, and affected PWSs in implementing this rule and will help ensure that the implementation among these groups is consistent.

- The *Draft Initial Distribution System Evaluation (IDSE) Guidance Manual* (EPA XXX-X-XX-XXX, Date) further explains IDSE requirements and the implementation of IDSE sampling required by the Stage 2 DBPR. The manual discusses the selection of monitoring sites, alternatives to monitoring, waivers, development of monitoring schedules, and preparation of the IDSE report.

- The *Draft Significant Excursions Guidance Manual* (EPA 815-D-03-004, July 2003) provides guidance on possible approaches to identifying significant excursions, conducting a significant excursion evaluation, and operational changes that systems may make to prevent recurrence of significant excursions.

- The *Draft Small System Compliance Document* (EPA XXX-X-XX-XXX, Date) identifies compliance and operational issues that may arise as small systems comply with the Stage 2 DBPR.

- The *Draft Consecutive System Guidance Manual* (EPA XXX-X-XX-XXX, Date) provides guidance on complying with Stage 2 DBPR monitoring requirements and MCLs to systems that purchase finished water.

- The *Draft Simultaneous Compliance Guidance Manual* (EPA XXX-X-XX-XXX, Date) provides guidance on how to avoid and resolve various potential conflicts that may arise as systems comply with the Stage 2 DBPR and the LT2ESWTR.

For more information, contact EPA's Safe Drinking Water Hotline, (800) 426-4791 or see the Office of Ground Water and Drinking Water Web page. The rule and draft guidance documents are located at http://www.epa.gov/safewater/stage2/index.html.

2.2 Rule Presentation

Presentations that can be used for workshops for the Stage 2 DBPR will be available in PowerPoint format on EPA's Web site: http://www.epa.gov/safewater/XXX.

2.3 Fact Sheet and Draft Quick Reference Guide

A Fact Sheet and Draft Quick Reference Guide for the Stage 2 DBPR may be useful for conveying basic information about the rule to water systems, new personnel, and stakeholders. These are stand-alone documents and are included in Appendix C of this draft guidance. They are:

- Fact Sheet: Stage 2 Disinfectants and Disinfection Byproducts Rule
- Proposed Stage 2 Disinfectants and Disinfection Byproducts Rule: A Draft Quick Reference Guide

2.4 Q&As

Questions and Answers (Q&As) on the Stage 2 DBPR will be provided in this section. These questions have been asked of EPA through the Safe Drinking Water Hotline, implementation training, or other means.

[To be inserted]

Section 3

State Implementation

EPA will undertake necessary rule implementation activities during the period of early implementation. During the early implementation period, the state may elect to undertake some, or all of the implementation activities, in cooperation with EPA. This will facilitate continuity of implementation and ensure that system-specific advice and decisions are made with the best available information and are consistent with existing state program requirements.

3.1 Overview of Implementation

The Stage 2 DBPR requires systems to take specific actions to comply with the rule. Monitoring, reporting, performance, and follow-up requirements should be clearly defined to assist systems' understanding of how the rule will affect them and what they must do to comply. To meet this goal, the main implementation activities expected to face all primacy agencies include the following:

- Identify affected systems.
- Communicate Stage 2 DBPR requirements to affected systems.
- Update data management systems.
- Address special primacy conditions of the Stage 2 DBPR.
- Consult with systems regarding IDSEs.
- Evaluate waivers to IDSE requirements for systems serving fewer than 500 people.
- Review/approve system requests to consider multiple consecutive system entry points from a single wholesale system as one plant for the purposes of IDSE and Stage 2B DBPR compliance monitoring.
- Review/approve IDSE reports and Stage 2 DBPR monitoring plans.
- Evaluate system requests for compliance schedule extensions.

This section discusses each of these items. To help the states' implementation efforts, the guidance in this section and in section 4 makes suggestions and offers alternatives that go beyond the minimum primacy agency requirements specified in the subsections of §142.16. Such suggestions are prefaced by "may" or "should" and are to be considered advisory. They are not required elements of states' applications for program revision.

Figure 3-1 shows a timeline with system activities on the top and primacy agency activities on the bottom.

Figure 3-1. Timeline of System and Primacy Agency Activities

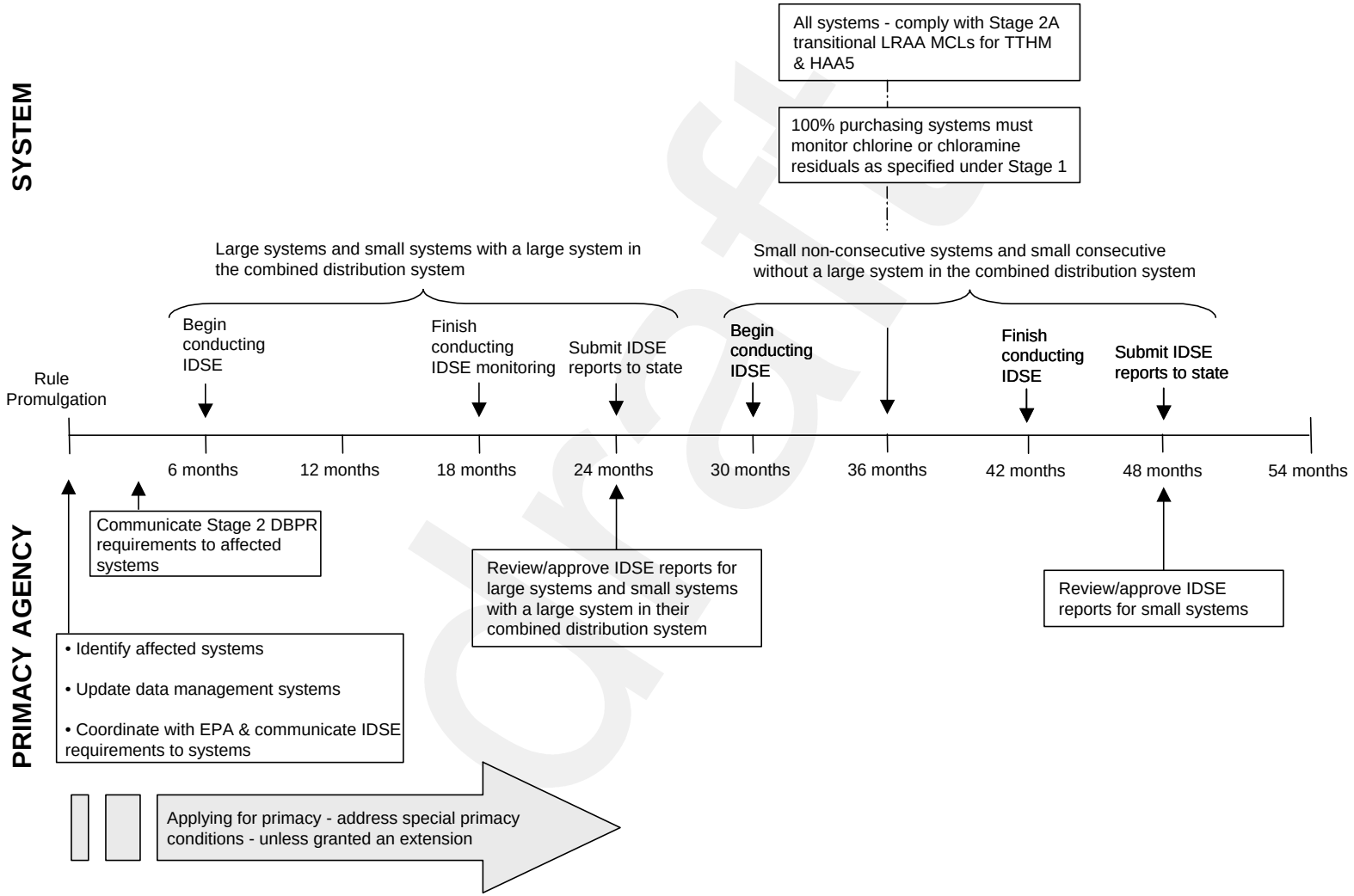
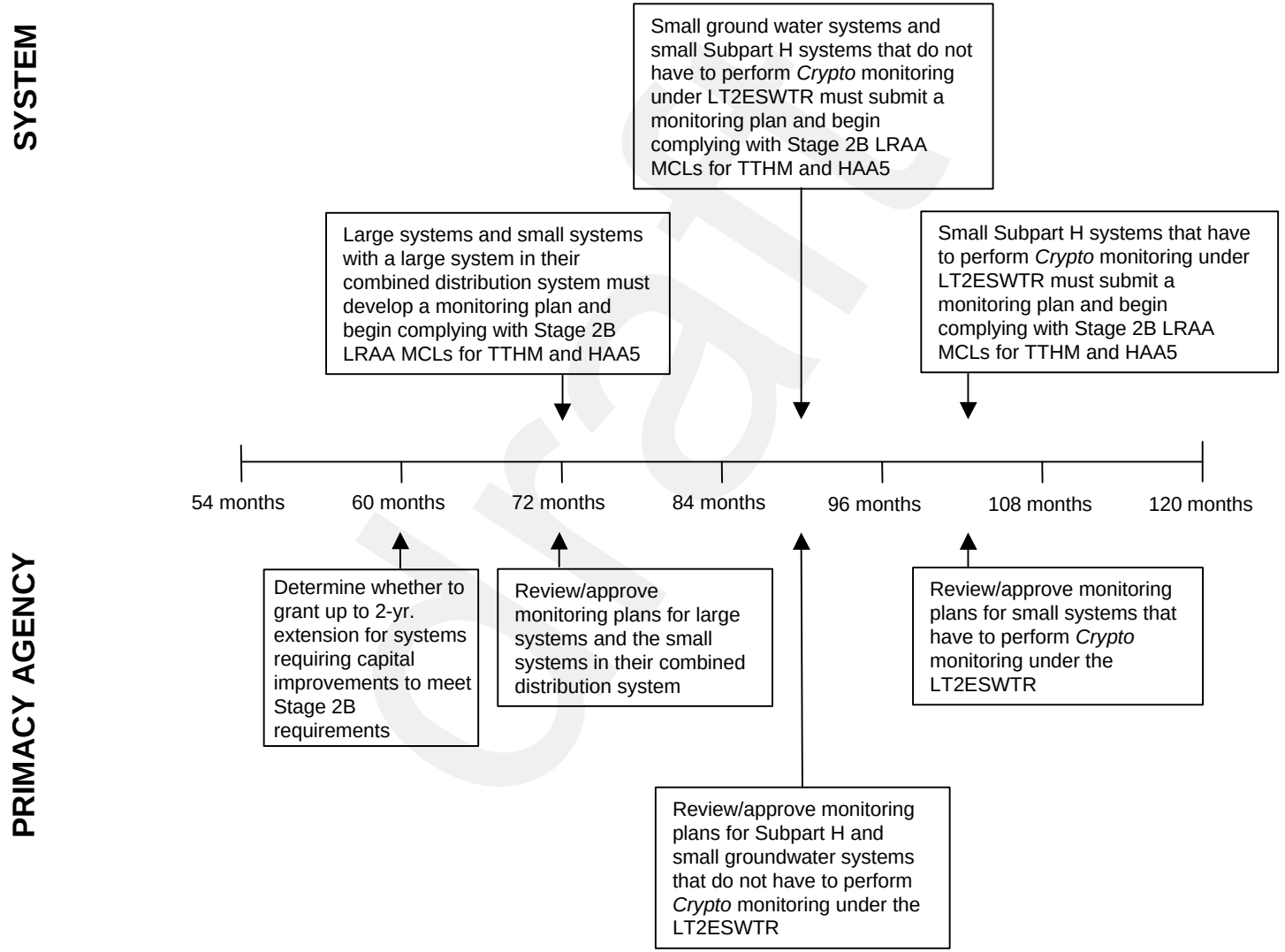


Figure 3-1. Timeline of System and Primacy Agency Activities (cont.)



3.2 Identify Affected Systems

3.2.1 General Provisions

The Stage 2 DBPR applies to all CWSs and NTNCWSs that add a primary or residual disinfectant other than UV or deliver water that has been treated with a primary or residual disinfectant other than UV (proposed §141.620 (b)). Unlike previous rules, the Stage 2 DBPR explicitly includes consecutive systems that deliver disinfected water among the CWSs and NTCWSs that are subject to the regulatory requirements.

States may wish to query or sort their database or other inventory information to list all CWSs and NTNCWSs that add a primary or residual disinfectant other than UV or deliver water that has been treated with a primary or residual disinfectant other than UV.

3.2.2 Initial Distribution System Evaluation (IDSE)

IDSE's are studies, used in conjunction with Stage 1 DBPR monitoring, to identify and select Stage 2B compliance monitoring sites that represent high TTHM and HAA5 levels throughout the distribution system (See section 1.2.2). States may wish to further sort their list from 3.2.1 into sub-categories, as not all systems will need to receive the same information during the same timeframe. The following sub-categories are suggested:

- CWS and NTNCWS serving at least 10,000 people (early schedule IDSE notification).
- CWS serving 500-9999 people (late schedule IDSE notification).
- CWS serving fewer than 500 people (late schedule IDSE notification with very small system waiver information).
- NTNCWS serving fewer than 10,000 people (not required to perform an IDSE).

Very small system waivers are discussed in more detail in sections 3.5 and 3.7.

3.2.3 Wholesale and Consecutive Systems

The Stage 2 DBPR provides special clarification on the sharing of responsibilities between consecutive systems and the wholesale systems that supply them. States may wish to further sort their list from 3.2.1 to denote which systems are wholesale and consecutive systems. These systems will have to submit their IDSE report at the same time as the largest system in their combined distribution system, regardless of the compliance timeframe associated with their own population served. In addition, systems that are 100 percent purchasing systems may not have had to comply with the Stage 1 DBPR and may need more communication regarding their responsibilities for complying with the Stage 2 DBPR.

3.3 Communicate Stage 2 DBPR Requirements to Affected Systems

3.3.1 Requirements and Target Notification Time Frames

Initial Distribution System Evaluation

As noted previously, IDSEs are studies conducted by water systems to identify compliance monitoring sites that represent high DBP levels in distribution systems (proposed §141.600). Systems may perform an IDSE either by completing a 1-year SMP or an SSS (see section 1.2.2.2). States may wish to provide information to systems on how to conduct the SMP or SSS, or they may simply refer their systems to EPA's *Draft Initial Distribution System Evaluation Guidance Manual* (EPA XXX-X-XX-XXX, Date) for more information.

Systems may not need to perform an SMP or SSS if they qualify for the 40/30 certification or the very small system waiver (see section 1.2.2.2). States may wish to provide information to systems on how to qualify for these alternatives, or they may simply refer their systems to EPA's *Draft Initial Distribution System Evaluation Guidance Manual* (EPA XXX-X-XX-XXX, Date) for more information.

States may wish to remind systems that all systems affected by the Stage 2 DBPR (except NTNCWSs serving fewer than 10,000 people and those receiving a very small system waiver) must submit an IDSE report to the state. While a "start date" was not specified by regulatory language, Table 3-1 includes a suggested start date that allows enough time between the end of the monitoring period and preparation of the report. Systems should be notified of their requirements before the suggested start date. Note that states will generally not have primacy during implementation of the IDSE for systems on the early schedule and will need to coordinate with EPA if they wish to be involved in this process.

Table 3-1. IDSE Reporting Schedule for Systems

Schedule Type	Applicable Systems	Suggested start date	IDSE Report Due Date
Early Schedule	Subpart H and ground water systems serving at least 10,000 people Subpart H and ground water systems serving less than 10,000 people that are part of a combined distribution system with at least one system serving 10,000 or more people	[date 6 months following publication of final rule]	[2 years after rule promulgation]
Late Schedule	Subpart and H and ground water systems serving less than 10,000 people that are not part of a combined distribution system with at least one system serving 10,000 or more people	[date 30 months following publication of final rule]	[4 years after rule promulgation]

Each system counts only its own population for the purpose of determining compliance with IDSE requirements (i.e., a system that is part of a combined distribution system counts only the population served within the service area under its direct control). A wholesaler does not include the population served by consecutive connections. Likewise, a consecutive system counts only the population served within its service area. However, all systems that are part of a combined system must adhere to the schedule of the largest wholesaler or consecutive system within the combined distribution system. Only systems that buy water for at least 60 days per year should be included in a combined distribution system EPA's *Draft Initial Distribution System Evaluation Guidance Manual* (EPA XXX-X-XX-XXX, Date) provides additional detail and examples for how to determine which systems are part of combined distribution systems and systems' IDSE report due date.

Stage 2A and Stage 2B Compliance

For Stage 2A, systems must continue to monitor for TTHM and HAA5 at the locations required under the Stage 1 DBPR (see 40 CFR 141.132). Using these monitoring results, systems must continue to demonstrate compliance with Stage 1 DBPR MCLs of 0.080 mg/L for TTHM and 0.060 mg/L for HAA5 based on a RAA (see 40 CFR 141.133). In addition, systems must comply with the Stage 2A MCLs of 0.120 mg/L for TTHM and 0.100 mg/L for HAA5 based on LRAA at each Stage 1 DBPR monitoring location (proposed §141.64(b)(2)). Systems may require additional clarification that they are not required to conduct any new monitoring for Stage 2A compliance. Rather, systems are using their Stage 1 data for two different compliance calculations: Stage 1 DBPR RAA compliance, and Stage 2A LRAA compliance.

For Stage 2B, systems must begin complying with MCLs of 0.080 mg/L and 0.060 mg/L as LRAAs for TTHM and HAA5, respectively, based on sampling sites identified through the IDSE provisions of the rule (proposed §141.620(d)). All systems must develop a Stage 2B monitoring plan (see sections 1.2.4.2 and 3.9) prior to the Stage 2B compliance date shown in Table 3-2 (proposed §141.622 (a)). Subpart H systems serving more than 3,300 people must submit their plan to the state prior to these compliance dates. States may wish to include information on the specific content of the monitoring plan and consider developing and providing forms or templates for the system's use.

Table 3-2 summarizes the compliance deadlines for Stage 2A and Stage 2B. States should communicate compliance requirements with systems in advance of these deadlines. States may wish to stagger the notification of the Stage 2A and Stage 2B requirements since these occur at different times. One suggestion would be a Stage 2A notification with a brief overview of upcoming Stage 2B requirements, followed by a more detailed Stage 2B notification as Stage 2B compliance dates approach.

Table 3-2. Compliance Schedule for Stage 2A and Stage 2B

System Type	Compliance Date for Stage 2A MCLs	Compliance Date for Stage 2B MCLs[1]
Subpart H[2] and ground water systems serving ≥10,000 people	[date 36 months following publication of final rule]	[date 72 months following publication of final rule]
Systems serving <10,000 people not required to do LT2ESWTR *Cryptosporidium* monitoring	[date 36 months following publication of final rule]	[date 90 months following publication of final rule]
Systems serving <10,000 people required to do LT2ESWTR *Cryptosporidium* monitoring	[date 36 months following publication of final rule]	[date 102 months following publication of final rule]

[1] States can grant systems an additional 2-year extension if capital improvements are necessary to comply with the MCLs.
[2] Subpart H systems are those that use surface water or GWUDI as a source and, for the purpose of this guidance, also includes consecutive systems that deliver such water.

3.3.2 Methods of Communication

Written Notification

Providing written notice of a final rule to PWSs serves two purposes: 1) the receiving system obtains a formal notice of upcoming regulatory requirements and a timeline for compliance (in addition to EPA's publication of the rule in the *Federal Register*); and 2) the primacy agency has a hard-copy document that it may file and use in subsequent compliance tracking efforts.

Written notification can be in the form of a letter from the state to affected systems. The letter should include a summary of rule requirements and timeframes and direct the reader to an appropriate contact if questions arise. States should consider including fact sheets or other summary materials with the letter. Appendix C of this guidance includes additional draft publications that are intended to be distributed to water systems through mailings, training sessions, or other educational forums. These publications will be available at www.epa.gov/safewater/stage2/index.html. They provide overviews of the Stage 2 DBPR to help systems understand the provisions of the rule and determine which provisions apply to their system. They also describe the benefits and general implications of the rule. Although valuable, these resources do not substitute for official rule language. States should consider mailing official rule language with the letter or including in the letter the website address where the regulatory language can be accessed.

A sample letter is provided as Example 3-1. In this example, the letter is tailored to systems based on their compliance deadlines. Systems may wish to further tailor the letter to accommodate those systems for which the provisions are either limited or unique.

Slide Presentation

For some, written communication alone will not result in full comprehension of the Stage 2 DBPR requirements. Slide presentations can be used by state staff and other training providers to present the background of the rule, its benefits, and rule requirements.

The EPA Drinking Water Academy will develop a training session on the Stage 2 DBPR (available in MS PowerPoint format). Copies of the presentation may be used to train other state personnel, technical assistance providers, water system personnel, and the public. EPA's Drinking Water Academy slides will be available electronically by accessing the EPA Web Site at www.epa.gov/safewater/dwa.html.

Guidance Documents and Seminars

Draft technical guidance documents developed for the Stage 2 DBPR are useful for explaining rule requirements and specific aspects of rule implementation, to system operators. These aspects include conducting IDSEs and calculating LRAA MCL compliance. The draft guidance documents can be used as stand-alone references or as supporting materials in Stage 2 DBPR-related training events. See section 2 of this manual for more information on these references.

Example 3-1. Example System Notification Letter

State Letterhead

John Smith, Supt.
Town Water System, PWSID XXXXXXX
Town, ST 12345

RE: Stage 2 Disinfectants and Disinfection Byproducts Rule

Dear Mr. Smith:

This letter is to notify you that your public water system will be affected by the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR). The Stage 2 DBPR applies to all community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) that treat their water with a primary or secondary disinfectant (other than ultraviolet light) or deliver water that has been treated with such a disinfectant. You are receiving this letter because our data shows your system is a CWS or NTNCWS that applies a disinfectant or delivers disinfected water.

The Stage 2 DBPR maintains the same MCLs requirements as established under the Stage 1 DBPR for TTHM and HAA5—levels in the distribution system as a system-wide running annual average (RAA)—but also requires systems to calculate compliance based on locational running annual averages (LRAA). This means that your system will have to comply with MCLs at each sampling location in the distribution system.

To identify optimal monitoring locations, your system must conduct an initial distribution system evaluation (IDSE) [OR: because your systems is an NTNCWS and serves less than 10,000 people, you do not have to comply with the initial distribution system evaluation requirements of the rule - *end this paragraph here for these systems*]. Because your system serves at least 10,000 people [OR: because your system is part of a combined distribution system with one or more systems serving at least 10,000 people], you must complete an IDSE and submit a report no later than [insert date 2 years after rule promulgation]. [OR: Because your system serves fewer than 10,000 people, you must complete an IDSE and submit a report no later than [insert date 4 years after rule promulgation].]

The Stage 2 DBPR will be implemented in two phases: Stage 2A and Stage 2B. Systems must begin to comply with the transitional (Stage 2A) monitoring requirements and LRAA MCLs beginning [insert date 3 years after rule promulgation]. Permanent new (Stage 2B) monitoring requirements and MCLs will go into effect [insert date 6 years after rule promulgation] for large systems serving at least 10,000 people [OR: [insert date 7.5 years after rule promulgation] for small systems serving fewer than 10,000 people, OR: [insert date 2 years after rule promulgation] for small systems that are required to monitor for *Cryptosporidium* under the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)]. Systems that are undergoing capital improvements to meet new requirements may be eligible for compliance extensions of up to 2 years. If your system is making capital improvements that will affect compliance with these requirements, notify the state as soon as possible to discuss obtaining an extension.

A Draft Quick Reference Guide and Fact Sheet for the Stage 2 DBPR are enclosed. The Guide provides more information on this regulation and the Fact Sheet explains the IDSE, monitoring, and MCL requirements in more detail. In addition to these materials, please refer to the final rule language on EPA's webiste [website address].

Please contact this office at XXX-XXXX if you have any questions about this letter or the Stage 2 DBPR and its effect on your system. We appreciate your attention to this request.

Sincerely,

3.4 Update Data Management Systems

Although state data management systems vary to suit state-specific requirements and needs, EPA recommends that all states ensure that their data management systems are capable of efficiently tracking affected water systems, compliance status, and other information needed to implement this rule. States using SDWIS/State should see the module incorporated in version [X].

The Stage 2 DBPR revises the system recordkeeping requirements in 40 CFR 141.33, clarifying the requirement that systems must maintain records of monitoring plans submitted until superceded by a new system monitoring plan. The current regulations in 40 CFR 142.14 require states with primacy to keep various records, including: analytical results to determine compliance with MCLs, MRDLs, and treatment technique requirements; system inventories; state approvals; enforcement actions; and the issuance of variances and exemptions. The Stage 2 DBPR requires that the state keep records related to any decisions made pursuant to IDSE requirements and Stage 2B DBP requirements, plus copies of IDSE reports submitted by systems until those reports are reversed or revised in their entirety.

3.5 Address Special Primacy Conditions of the Stage 2 DBPR

Some provisions of the Stage 2 DBPR allow state discretion in establishing decision-making criteria. The five main provisions for which states must make a timely decision on what they will require of systems are (proposed §142.16):

- States that intend to use the authority to grant blanket waivers for IDSE requirements to very small systems (serving less than 500 people) must comply with special primacy provisions for granting such waivers.
- States must develop a procedure for evaluating system-specific studies under, if system-specific studies are conducted in the state.
- States must establish a procedure for determining that multiple consecutive system entry points from a single wholesale system to a single consecutive system should be treated as a single treatment plant for monitoring purposes.
- States that intend to use the authority to specify alternative monitoring requirements for consecutive systems in a combined distribution system must include a description of how they intend to implement that authority.
- States must establish criteria for determining when a significant excursion has occurred.

The special primacy requirements for the Stage 2 DBPR address these discretionary items and are discussed in section 4.4 of this guidance.

3.6 Consult with Systems Regarding IDSE

With the exception of NTNCWSs serving fewer than 10,000 people and CWSs serving fewer than 500 people that receive a very small system waiver, all systems (including consecutive systems) must perform an IDSE. There are three possible ways to satisfy the IDSE requirement: 1) monitor for TTHM and HAA5 for 1 year at a number of sample points throughout the distribution system, 2) perform a system-specific study, or 3) provide 40/30 certification. States may need to consult with systems that have questions about which alternative they will use to comply with this requirement. These options are explained in more detail below.

3.6.1 Standard Monitoring Program Alternative

The SMP option for the IDSE is the default—if a system does not get a waiver, cannot use the 40/30 certification option, and does not have enough data or studies to complete an SSS, they must conduct monitoring under the SMP. EPA has developed a draft guidance document on selecting IDSE monitoring sites and conducting IDSE monitoring (*Draft Initial Distribution System Evaluation Guidance Manual* (EPA XXX-X-XX-XXX, Date)).

The SMP entails 1 year of distribution system monitoring on a set schedule. EPA has developed two monitoring schemes for the SMP based on whether or not a system treats water:

- A plant-based approach for producing systems that is dependent on population served, source water, AND the number of plants in a system (as with Stage 1 DBPR compliance monitoring) and applies to systems that produce some or all of their own finished water. For the purpose of the Stage 2 DBPR, a plant can be either a treatment plant (that provides, at a minimum, disinfection using a disinfectant other than UV) or a consecutive system entry point that operates for at least 60 consecutive days per year.

- A population-based approach for 100 percent purchasing systems that is dependent on population served and source water and applies to only those systems that purchase 100 percent of their finished water from other systems.

Tables 3-3 and 3-4 present the IDSE SMP requirements for 100 percent purchasing systems and producing systems, respectively.

Systems conducting the SMP must monitor during the peak historical month for DBP levels (or warmest water temperature when quarterly TTHM data is not available). All IDSE samples must be taken as dual sample sets (i.e., a TTHM and a HAA5 sample will be taken at each site). The IDSE monitoring results will not be used for determining compliance with MCLs and are not required to be reported in the CCR.

When notifying consecutive systems of these requirements, states may wish to send copies of the correspondence to the associated wholesale systems to minimize confusion about sampling responsibilities.

Table 3-3. IDSE Monitoring Requirements for Producing Systems[1,2]

System Size (Population Served[3])	Residual Disinfectant	Number of Distribution System Sites (by location type) per Plant				Total Number of Sites per Plant	Monitoring Frequency[4]
		Near Entry Point	Average Residence Time	High TTHM	High HAA5		
Subpart H Systems[5]							
<500	Chlorine or Chloramines	-	-	1	1	**2**	Every 180 days
500 - 9,999	Chlorine or Chloramines	-	-	1	1	**2**	Every 90 days
≥10,000	Chlorine	1	2	3	2	**8**	Every 60 days
	Chloramines	2	2	2	2	**8**	
Ground Water Systems							
<10,000	Chlorine or Chloramines	-	-	1	1	**2**	Every 180 days
≥10,000	Chlorine or Chloramines	-	-	1	1	**2**	Every 90 days

[1] Proposed §141.602(a)

[2] For the purpose of this guidance manual, *producing systems* are those that do not buy 100 percent of their water year-round (i.e., they produce some or all of their own finished water).

[3] *Population served* is usually a system's residential population. It does not include populations served by consecutive systems that purchase water from that system.

[4] Monitoring frequency is the approximate number of days between monitoring events. A dual sample set must be collected at each location. A dual sample set is one TTHM and one HAA5 sample that is taken at the same time and location.

[5] Subpart H systems are those that use surface water or GWUDI as a source and, for the purpose of this guidance, also includes consecutive systems that deliver such water.

Table 3-4. IDSE SMP Requirements for 100 Percent Purchasing Systems[1,2]

System Size (Population Served[3])	Number of Distribution System Sites (by location type) per System				Total Number of Sites per System	Monitoring Frequency for the 1-year IDSE Period[5]
	Near Entry Point[4]	Average Residence Time	High TTHM	High HAA5		
Subpart H Systems[6]						
< 500	-	-	1	1	**2**	Every 180 days
500 - 4,999	-	-	1	1	**2**	Every 90 days
5,000 - 9,999	-	1	2	1	**4**	Every 90 days
10,000 - 24,999	1	2	3	2	**8**	Every 60 days
25,000 - 49,999	2	3	4	3	**12**	Every 60 days
50,000 - 99,999	3	4	5	4	**16**	Every 60 days
100,000 - 499,999	4	6	8	6	**24**	Every 60 days
500,000 - < 1.5 million	6	8	10	8	**32**	Every 60 days
1.5 million - < 5 million	8	10	12	10	**40**	Every 60 days
≥ 5 million	10	12	14	12	**48**	Every 60 days
Ground Water Systems						
< 500	-	-	1	1	**2**	Every 180 days
500 - 9,999	-	-	1	1	**2**	Every 90 days
10,000 - 99,999	1	1	2	2	**6**	Every 90 days
100,000 - 499,999	1	1	3	3	**8**	Every 90 days
≥ 500,000	2	2	4	4	**12**	Every 90 days

[1] Proposed §141.602(b)

[2] For the purposes of this manual, *100 percent purchasing systems* are those systems that buy or otherwise receive all of their finished water from one or more wholesale systems year-round.

[3] *Population served* is usually a system's residential population. It does not include populations served by consecutive systems that purchase water from that system.

[4] See section 8.2 for requirements when the number of entry points in a system is different from the number of required near-entry point sites in this table.

[5] Monitoring frequency is the approximate number of days between monitoring events. A dual sample set must be collected at each location. A dual sample set is one TTHM and one HAA5 sample that is taken at the same time and location.

[6] Subpart H systems are those that use surface water or GWUDI as a source and, for the purpose of this guidance, also includes consecutive systems that deliver such water.

3.6.2 SSS Alternative

To comply with the IDSE requirement, systems may choose to perform a SSS based on other monitoring studies or data. These studies must identify equivalent or superior monitoring sites representing high TTHM and HAA5 levels as would be identified by IDSE monitoring (proposed §141.603 (a)). Examples of alternative studies include recent site-specific monitoring data that encompass a wide range of sample sites, including those judged to target high TTHM and HAA5 concentrations, and hydraulic modeling studies that simulate water movement in the distribution system. Historical TTHM and HAA5 results submitted by systems must come from certified laboratories and must include the system's most recent data. Treatment plant and distribution system characteristics at the time of historical data collection must reflect the current plant operations and distribution system. The state must submit criteria for evaluating SSSs as part of their primacy application (see section 4.4 for guidance on developing this criteria). The *Draft Initial Distribution System Evaluation Guidance Manual* (EPA XXX-X-XX-XXX, Date) provides additional information on conducting system-specific studies and determining whether system-specific data could be sufficient to meet the IDSE requirements.

3.6.3 40/30 Certification Alternative

Systems demonstrating low historic TTHM and HAA5 distribution system concentrations in accordance with the Stage 2 DBPR requirements may qualify for the 40/30 certification. Systems must meet the following criteria to qualify (proposed §141.603(b)):

- All **individual TTHM compliance data** must be less than or equal to 0.040 mg/L, and all **individual HAA5 compliance data** must be less than or equal to 0.030 mg/L during the periods specified in Table 3-5.
- No TTHM or HAA5 monitoring violations during the period specified in Table 3-5.
- All monitoring data must have been analyzed by a certified laboratory (per Stage 1 DBPR compliance monitoring requirements).

Consecutive systems that did not take the number of samples required of its size and source water type under the Stage 1 DBPR are not eligible for the 40/30 certification (proposed §141.601(a)). The Stage 1 DBPR allowed the state to allocate sample sites across a combined distribution system at their discretion. As a result, some systems may have few or no sample sites and thus insufficient data to support a 40/30 certification.

Table 3-5. Compliance Monitoring Data Requirements for the 40/30 Certification[1]

Source Water Type	Population Served[2]	Regulation and Monitoring Period[3]
Subpart H	≥10,000 people	Stage 1 DBPR compliance data from January 2002 to December 2003
	<10,000 people that have a system serving ≥10,000 people in their combined distribution system[4]	Stage 1 DBPR compliance data collected in 2004
	<10,000 people that do not have a system serving ≥10,000 people in their combined distribution system[4]	Stage 1 DBPR compliance data from January 2004 to December 2005
Ground water	≥10,000 people	TTHM Rule compliance data from 2003 and Stage 1 DBPR compliance collected in 2004
	<10,000 people that have a system serving ≥10,000 people in their combined distribution system[4]	Stage 1 DBPR compliance data collected in 2004
	<10,000 people that do not have a system serving ≥10,000 people in their combined distribution system[4]	Stage 1 DBPR compliance data from January 2004 to December 2005

[1] Proposed §141.603(b)

[2] *Population served* is usually a system's retail population. It should not include populations served by consecutive systems that purchase water from that system.

[3] All data must have been analyzed by a certified laboratory and done by approved methods (as required by the Stage 1 DBPR). In addition, systems must not have had any TTHM or HAA5 monitoring violations during the period specified.

[4] A combined distribution system is the totality of the distribution system of all wholesale systems and the consecutive systems that receive finished water from the wholesale systems.

3.7 Evaluate Waivers to IDSE Requirements for Systems Serving Fewer than 500 People

The IDSE requirement for systems serving fewer than 500 people may be waived if the state determines that the monitoring site approved for Stage 1 DBPR compliance is sufficient to represent both high HAA5 and high TTHM concentrations. States may decide to waive the IDSE requirement for all systems serving fewer than 500 people or some subset of all systems serving fewer than 500 people. To issue blanket waivers, states must develop a very small system waiver procedure and submit it as part of their primacy package (see section 4.4 for guidance on how to develop a very small system waiver procedure). In cases where states have not granted blanket waivers, states must make system-by-system determinations.

States can evaluate small system configuration and operating data to make system-by-system waiver determinations. For many systems with compact or small distribution systems, the high TTHM and HAA5 concentrations will likely occur at the same location. This is because both TTHM and HAA5 tend to continue to form in drinking water as long as disinfectant residuals and DBP precursors are

present. Unlike TTHM, however, HAA5 is known to biodegrade when disinfectant residuals are low. EPA's *Draft Initial Distribution System Evaluation Guidance Manual* (EPA XXX-X-XX-XXX, Date) lists system conditions that indicate that the highest TTHM and HAA5 concentrations may not occur at the same location:

- Inability to maintain a disinfectant residual in all parts of the system. Areas with very low or no disinfectant residual can have long residence times and may have some biological activity. These areas may have high TTHM concentrations due to long residence time but less-than-maximum HAA5 concentrations due to biodegradation in the distribution system.

- High levels of heterotrophic bacteria (if data are available). Elevated levels of heterotrophic bacteria in the distribution system (especially if these high levels occur repeatedly) may reflect environmental conditions that promote biofilm growth and, thus, have the potential for HAA5 biodegradation.

- TTHM concentration much greater than HAA5 concentration at the Stage 1 DBPR monitoring site (possibly indicating degradation of HAA5 in the sample location area). As a rule of thumb, EPA recommends that systems consider selecting a different monitoring site to represent high HAA5 if their Stage 1 DBPR TTHM data are, on average, more than 4 times greater than Stage 1 DBPR HAA5 data.

These guidelines are not all-inclusive—TTHM and HAA5 formation depends on many system-specific factors. States should determine if there are other factors that affect small systems in their state. If the highest TTHM and HAA5 concentrations do not occur at the same location and the state does not grant the waiver, systems must perform an IDSE.

States with a high number of small systems may wish to conduct special technical assistance or training efforts, depending upon the specific state approach used for small system waivers.

3.8 Review/Approve System Requests to Consider Multiple Consecutive System Entry Points from a Single Wholesale System as One Plant

States can allow multiple consecutive system entry points from a single wholesale system to a single consecutive system to be considered as one treatment plant for IDSE requirements and Stage 2B DBPR compliance monitoring. System requests must demonstrate that factors such as relative locations of entry points, detention times, sources, and the presence of treatment (such as corrosion control or booster disinfection) will have a minimal differential effect on TTHM and HAA5 formation associated with individual entry points. States must submit criteria for evaluating these requests as part of their primacy application (see section 4.4).

States should consider notifying systems that requests must be received sufficiently in advance of the dates for IDSE reporting (proposed §141.600(c)) and for Stage 2B compliance (proposed §141.620(c)) to allow for state review.

3.9 Review/Approve IDSE Reports and Stage 2 DBPR Monitoring Plans

All systems affected by the Stage 2 DBPR (except NTNCWSs serving fewer than 10,000 people and those receiving a very small system waiver) must submit an IDSE report to the state. The IDSE report must include:

- The original IDSE monitoring plan and an explanation of any deviations from that plan.
- Information regarding the population served; system type (Subpart H or ground water); consecutive or wholesale system; and the number of treatment plants and consecutive system entry points (for plant-based monitoring).
- A schematic of the distribution system (with results, location, and date of all samples noted).
- All SSS analytical results or modeling in a tabular or spreadsheet format and any additional data used to justify monitoring site selection.
- Studies, reports, data, analytical results, and/or modeling demonstrating that the recommended monitoring sites representing high TTHM and HAA5 levels are comparable or superior to those that would otherwise have been identified by IDSE monitoring (for systems that conduct the SSS alternative).
- All IDSE TTHM and HAA5 analytical results in a tabular or spreadsheet format (for systems that conduct IDSE monitoring).
- Data demonstrating that all samples are less than or equal to 0.040 mg/L TTHM and 0.030 mg/L HAA5 (for systems that qualify for the 40/30 waiver).
- Recommendations for TTHM and HAA5 Stage 2B DBPR compliance monitoring sites.

Generally, systems that conduct monitoring must recommend locations with the highest LRAAs to be Stage 2B compliance locations, unless they provide a rationale for selecting other locations (see proposed §141.605). Systems must consider both their Stage 1 compliance data and the IDSE monitoring data in making this determination. EPA has developed guidance (*Draft Initial Distribution System Evaluation Guidance Manual* (EPA XXX-X-XX-XXX, Date)) for selecting new monitoring sites including examples of when it may be appropriate to select sites that are not the highest and how to prepare the IDSE report.

All systems must develop a Stage 2 DBPR monitoring plan that includes the following information: monitoring locations, monitoring dates, compliance calculation procedures, and copies of any permits, contracts, or other agreements with third parties to sample, analyze, report, or perform any other system requirement (proposed §141.622 (a)). Subpart H system serving more than 3,300 people must submit their monitoring plan to the state prior to the date they are required to comply with the plan. Systems in a combined distribution system must include the above information as well as monitoring plans for other systems in the combined distribution system if their monitoring requirements have been modified based on data from other sytems. The monitoring plan must reflect recommendations of the IDSE report and any state-mandated changes to the report. Systems serving fewer than 500 people that receive a waiver to

the IDSE must comply by updating their Stage 1 DBPR monitoring plan (see 40 CFR 141.132(f)). The system must sample according to the monitoring plan as modified by any changes required by the state.

It is important to note that systems previously on reduced monitoring for the Stage 2 DBPR may not begin Stage 2B on reduced monitoring. Systems can qualify for reduced monitoring only after completing 1 year of routine monitoring under Stage 2B.

While the rule does not explicitly require states to approve the IDSE reports or monitoring plans, EPA strongly recommends that states undertake this activity. This is to ensure that the monitoring locations are selected appropriately and in a manner to provide data to best protect public health.

3.10 Evaluate System Requests for Compliance Schedule Extensions

Under section 1412(b)(10) of the SDWA, the state may grant up to a 2-year extension on a system-by-system basis for systems requiring capital improvements to meet Stage 2A. Systems must comply with the Stage 2A transitional LRAA MCLs for TTHM and HAA5 by [insert 3 years after rule promulgation] but, with a 2-year extension, could have up to [insert 5 years after rule promulgation] to comply.

Proposed §141.620(c) allows states to grant up to an additional 24 months from the dates listed for compliance with Stage 2B if a system requires capital improvements.

In either case, the state should have the system enter into an extension agreement, with construction milestones and interim activities that the system will undertake to protect public health during this extension period. States may wish to develop information and procedures on the specific content of the extension request and consider developing and providing forms or templates for the system's use.

Section 4

State Primacy Revision Application

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40 CFR 142 sets out requirements for states to obtain and/or retain primary enforcement responsibility (primacy) for the Public Water System Supervision (PWSS) program as authorized by section 1413 of the SDWA. The 1996 SDWA Amendments update the process for states to obtain and/or retain primacy. On April 28, 1998, EPA promulgated the Primacy Rule to reflect these statutory changes (63 *FR* 23361).

4.1 State Primacy Program Revision

Pursuant to 40 CFR 142.12 (Revision of State Programs), complete and final requests for approval of program revisions to adopt new or revised EPA regulations must be submitted to the EPA Administrator no later than 2 years after promulgation of the new or revised federal regulations (see Table 4-1). Until those applications are approved, EPA regions have responsibility for directly implementing the Stage 2 DBPR. The state and EPA can agree to implement the rule together during this period. However, if a state is eligible for interim primacy, it will have full implementation and enforcement authority once it submits a complete and final revision package. A state may be granted an extension of time, up to 2 years, to submit its application package. During any extension period, an extension agreement outlining the state's and EPA's responsibilities is required.

Table 4-1. State Rule Implementation and Revision Timetable for the Stage 2 DBPR

EPA/State Action	Time Frame
Rule published by EPA	[insert date]
State and region establish a process and agree upon a schedule for application review and approval (optional)	2 months after rule publication [insert date]
State, at its option, submits *draft* program revision package to region including: Preliminary Approval Request, Draft State Regulations and/or Statutes, Regulation Crosswalk	6 months after rule publication [insert date]
Regional (and Headquarters if necessary) review of draft	Completed within 90 days of state submittal of draft (Suggested)
State submits final program revision package to region including: Adopted State Regulations Regulation Crosswalk 40 CFR 142.10 Primacy Update Checklist 40 CFR 142.14 and 142.15 Reporting and Recordkeeping 40 CFR 142.16 Special Primacy Requirements Attorney General's Enforceability Certification	2 years after rule publication [insert date]*
EPA final review and determination: Regional Review (program and ORC) Headquarters Concurrence and Waivers (OGWDW and OECA) Public Notice Opportunity for Hearing EPA's Determination	Completed within 90 days of state submittal of final 45 days region 45 days Headquarters**
Rule Compliance Date	[insert date]

* EPA suggests submitting an application by [insert date] to ensure timely approval. EPA regulations allow states until [insert date] for this submittal. An extension of up to 2 additional years may be requested by the state.
** At least one state per region.

4.1.1 The Revision Process

The approval of state program revisions should be a two-step process comprised of submission of a draft request (optional) and submission of a complete and final request for program approval. Figure 4-1 diagrams these processes and their timing.

Draft Request—The state may submit a draft request for EPA review and tentative determination. The request should contain drafts of all required primacy application materials (with the exception of a draft Attorney General's Statement). A draft request should be submitted within 9 months after rule promulgation. EPA will make a tentative determination as to whether the state program meets the applicable requirements. The tentative determination should be made within 90 days.

Complete and Final Request—This submission must be in accordance with 40 CFR 142.12(c)(1) and (2) and include the Attorney General's statement. The state must also include its response to any comments and/or program deficiencies identified in the tentative determination (if applicable). Regions should make states aware that submission of only a final request may make it more difficult for the states to address any necessary changes within the allowable time for state rule adoption.

EPA recommends that states submit their complete and final revision package within 21 months of rule promulgation. This will ensure that states will have interim primacy as soon as possible and will prevent states from becoming backlogged with revision applications to adopt future federal requirements.

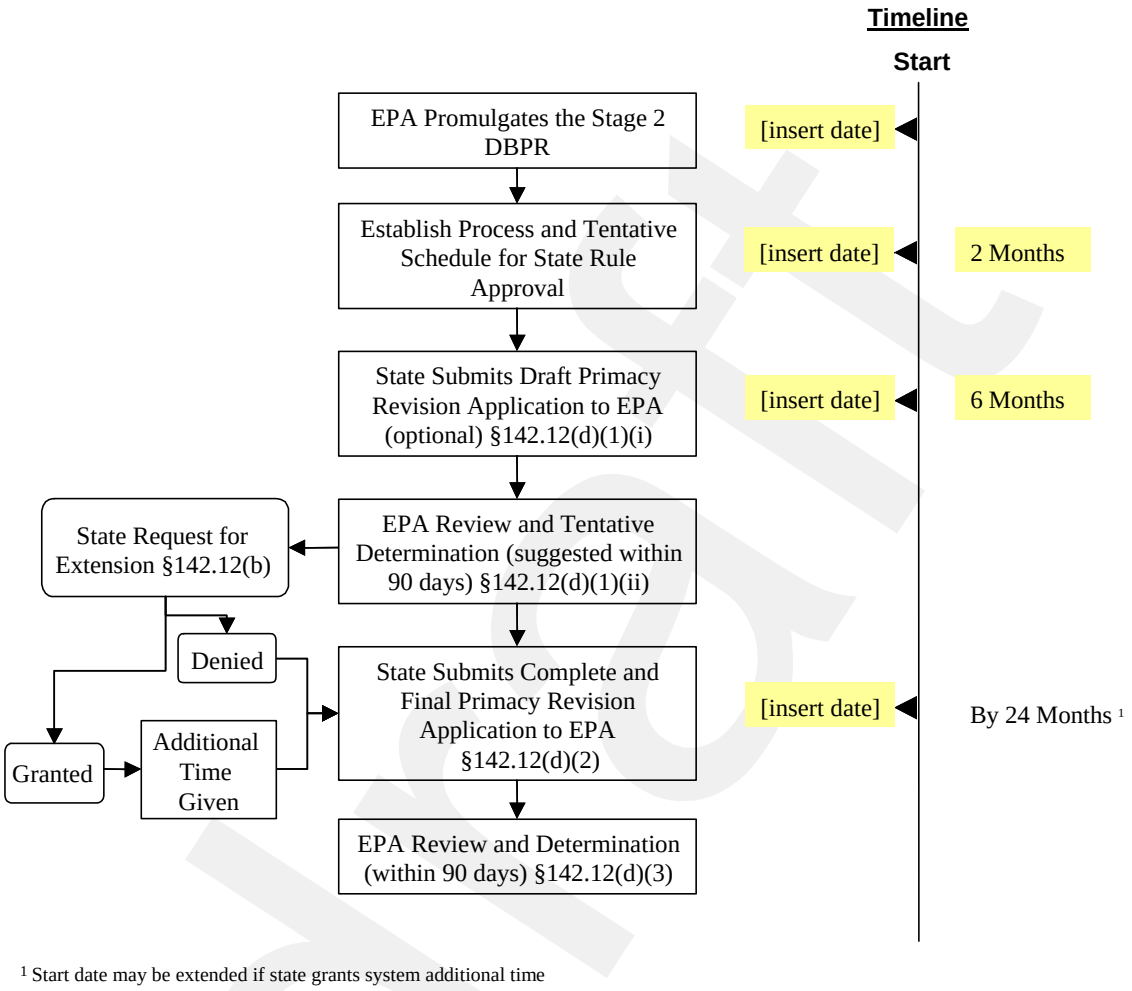
The state and region should agree to a plan and timetable for submitting the state primacy revision application as soon as possible after rule promulgation—ideally within 5 months of promulgation.

4.1.2 The Final Review Process

Once a state application is complete and final, EPA has a regulatory (and statutory) deadline of 90 days to review and approve or disapprove the revised program. The Offices of Ground Water and Drinking Water (OGWDW) and Enforcement and Compliance Assurance (OECA) will conduct detailed reviews of the first state package from each region. The regional office should submit its comments with the state's package for review by Headquarters (HQ). When the region has identified all significant issues, OGWDW and OECA will waive concurrence on all other state programs in that region, although HQ will retain the option to review additional state programs as appropriate. The Office of General Counsel (OGC) has delegated its review and approval to the Office of Regional Counsel (ORC).

In order to meet the 90-day deadline for packages undergoing review by HQ, the review period will be equally split, giving the region and Headquarters each 45 days to conduct their respective reviews. For the first package in each region, regions should forward copies of the primacy revision applications and their evaluations, no later than 45 days after state submittal, to the Drinking Water Protection Division Director in OGWDW, who will take the lead on the HQ review process. OGWDW will provide OECA with a copy for their concurrent review.

Example 4-1. Recommended Review Process for State Request for Approval of Program Revisions



[1] Start date may be extended if state grants system additional time

4.2 State Primacy Program Revision Extensions

4.2.1 The Extension Process

Under 40 CFR 142.12(b), states may request that the 2-year deadline for submitting the complete and final packages for EPA approval of program revisions be extended for up to 2 additional years in certain circumstances. The extension request must be submitted to EPA within 2 years of the date that EPA published the regulation. The Regional Administrator has been delegated authority to approve extension applications. Concurrence by HQ on extensions is not required.

Therefore, the state must either adopt regulations pertaining to the Stage 2 DBPR and submit a complete and final primacy revision application or request an extension of up to 2 years by [insert date: 2 years after Stage 2 DBPR promulgation].

4.2.2 Criteria that an Extension Request Must Meet

For an extension to be granted under 40 CFR 142.12(b), the state must demonstrate that it is requesting the extension because it cannot meet the original deadline for reasons beyond its control, despite a good faith effort to do so. A critical part of the extension application is the state's proposed schedule for submission of its complete and final request for approval. The application must also demonstrate at least one of the following:

(i) That the state currently lacks the legislative or regulatory authority to enforce the new or revised requirements;

(ii) That the state currently lacks the program capability adequate to implement the new or revised requirements; or,

(iii) That the state is requesting the extension to group two or more program revisions in a single legislative or regulatory action.

In addition, the state must implement EPA requirements in its program revision within the scope of its current authority and capabilities.

4.2.3 Conditions of the Extension

Until the State Primacy Revision Application has been submitted, the state and appropriate EPA regional office will share responsibility for implementing the primary program elements as indicated in the extension agreement. The state and the EPA regional office should discuss these elements and address terms of responsibility in the agreement.

These conditions will be determined during the extension approval process and are decided on a case-by-case basis. The conditions must be included in an extension agreement between the state and the EPA regional office.

Conditions of an extension agreement may include:

- Informing PWSs of the new EPA (and upcoming state) requirements and the fact that the region will be overseeing implementation of the requirements until they approve the state program revisions or until the state submits a complete and final revision package if the state qualifies for interim primacy.

- Collecting, storing, and managing laboratory results, public notices, and other compliance and operation data required by the EPA regulations.

- Assisting the region in the development of the technical aspects of enforcement actions and conducting informal follow-up on violations (telephone calls, letters, etc.).

- Providing technical assistance to PWSs.

- For states whose request for an extension is based on a current lack of program capability adequate to implement the new requirements, taking steps agreed to by the region and the state during the extension period to remedy the deficiency.

- Providing the region with all the information required under 40 CFR 142.15 for state reporting.

Figure 4-2 provides a checklist the states and EPA regions can use to review state extensions or to create an extension agreement.

Until states have primacy, EPA is the primacy enforcement authority. However, historically states have played a role in implementation for various reasons—most importantly, since states have local knowledge, expertise, and established relationships with their systems.

The state and EPA should be viewed as partners in this effort, working toward two very specific public health-related goals. The first goal is to achieve a high level of compliance with the regulation. The second goal is to facilitate successful implementation of the regulation during the transition period before the state has primacy, including interim primacy, for the rule. In order to accomplish these goals, education, training, and technical assistance will need to be provided to water suppliers on their responsibilities under the Stage 2 DBPR.

Example 4-2. Example Extension Request Checklist

{Date}

{Regional Administrator}
Regional Administrator
U.S. EPA Region **{Region}**
{Street Address}
{City, State, Zip}

RE: Request/approval for an Extension Agreement

Dear **{Regional Administrator}**:

The State of **{State}** is requesting an extension to the date that final primacy revisions are due to EPA for the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) until **{insert date - no later than 4 years after the final rule is published in the *Federal Register*}**, as allowed by 40 CFR 142.12, and would appreciate your approval. Staff of the **{State Department/Agency}** have conferred with your staff and have agreed to the requirements listed below for this extension. This extension is being requested because the State of **{State}**:

❑ Is planning to group two or more program revisions into a single legislative or regulatory action.

❑ Currently lacks the legislative or regulatory authority to enforce the new or revised requirements.

❑ Currently lacks adequate program capability to implement the new or revised requirements.

{State Department/Agency} will be working with EPA to implement the Stage 2 DBPR within the scope of its current authority and capability, as outlined in the six areas identified in 142.12(b)(3)(i-vi):

i) Informing PWSs of the new EPA (and upcoming state) requirements and the fact that EPA will be overseeing implementation of the requirements until EPA approves the state revision.

State	EPA	
____	____	Provide copies of regulation and guidance to other state agencies, public water systems (PWSs), technical assistance providers, associations, or other interested parties.
____	____	Educate and coordinate with state staff, PWSs, the public, and other water associations about the requirements of this regulation.
____	____	Notify affected systems of their requirements under the Stage 2 DBPR.
____	____	Other:

ii) Collecting, storing, and managing laboratory results, public notices, and other compliance and operation data required by the EPA regulations.

State	EPA	
____	____	Devise a tracking system for PWS reporting pursuant to the Stage 2 DBPR.

____ ____ Keep PWSs informed of reporting requirements during development and implementation.
____ ____ Report Stage 2 DBPR violation and enforcement information to SDWIS as required.
____ ____ Other:

iii) Assisting EPA in the development of the technical aspects of the enforcement actions and conducting informal follow-up and violations (telephones calls, letters, etc.).

State EPA
____ ____ Issue notices of violation (NOVs) for treatment technique, MCL, and monitoring/ reporting violations of the Stage 2 DBPR.
____ ____ Provide immediate technical assistance to PWSs with MCL and/or monitoring/reporting violations to try to bring them into compliance.
____ ____ Refer all violations to EPA for enforcement if they have not been resolved within 60 days. Provide information as requested to conduct and complete any enforcement action referred to EPA.
____ ____ Other:

iv) Providing technical assistance to PWSs.

State EPA
____ ____ Conduct training within the state for PWSs on Stage 2 DBPR rule requirements.
____ ____ Provide technical assistance through written and/or verbal correspondence with PWSs.
____ ____ Provide on-site technical assistance to PWSs as requested and needed to ensure compliance with this regulation.
____ ____ Coordinate with other technical assistance providers and organization to provide accurate information and aid in a timely manner.
____ ____ Other:

v) Providing EPA with all information prescribed by the state reporting requirements in 142.15.

State EPA
____ ____ Report any violations of this regulation by PWSs each quarter.
____ ____ Report any enforcement actions taken against PWSs for this regulation each quarter.
____ ____ Report any variances or exemptions granted for PWSs for this regulation each quarter.
____ ____ Other:

vi) For states whose request for an extension is based on a current lack of program capability to implement the new or revised requirements, taking the following steps to remedy the capability deficiency.

State EPA
____ ____ Acquire additional resources to implement these regulations (list of specific steps being taken attached as **{List A}**).
____ ____ Provide quarterly updates describing the status of acquiring additional resources.
____ ____ Other:

I affirm that the **{State Department/Agency}** will implement provisions of the Stage 2 DBPR as outlined above.

_____

{Agency Director or Secretary} Date

_____

{Name of State Agency}

I have consulted with my staff and approve your extension for the aforementioned regulation. I affirm that EPA Region **{Region}** will implement provisions of the Stage 2 DBPR as outlined above.

_____

Regional Administrator Date
EPA Region **{Region}**

This Extension Agreement will take effect upon the date of the last signature.

4.3 State Primacy Package

The Primacy Revision Application package should consist of the following sections:

- ❑ State Primacy Revision Checklist
- ❑ Text of the State's Regulation
- ❑ Primacy Revision Crosswalk
- ❑ State Reporting and Recordkeeping Checklist
- ❑ Special Primacy Requirements
- ❑ Attorney General's Statement of Enforceability

4.3.1 The State Primacy Revision Checklist [40 CFR 142.12(c)(1)]

This section is a checklist of general primacy requirements, taken from 40 CFR 142.10, as shown in Table 4.2. In completing this checklist, the state must identify the program elements that it has revised in response to new federal requirements. If an element has been revised, the state should indicate a "Yes" answer in the "Revision to State Program" column and should submit appropriate documentation. For elements that did not require revision, the state need only list the citation and date of adoption in the "Revision to State Program" column. During the application review process, EPA will insert findings and comments in the final column.

States must have primacy or interim primacy for all existing regulations before they can receive primacy for this regulation.

States may bundle the primacy revision packages for multiple rules. If states choose to bundle requirements, the Attorney General's Statement should reference all of the rules included.

4.3.2 Text of the State's Regulation

Each primacy application package should include the text of the state regulation.

4.3.3 Primacy Revision Crosswalk

The Primacy Revision Crosswalk, found in Appendix A, should be completed by states in order to identify state statutory or regulatory provisions that correspond to each federal requirement. If the state's provisions differ from federal requirements, the state should explain how its requirements are "no less stringent."

Table 4-2. State Primacy Revision Checklist

Required Program Elements		Revision to State Program	EPA Findings/Comments
40 CFR 142.10(b)(6)(iii)	Right of entry		
40 CFR 142.10(b)(6)(iv)	Authority to require records		
40 CFR 142.10(b)(6)(v)	Authority to require public notification		
40 CFR 142.10(b)(6)(vi)	Authority to assess civil and criminal penalties		
40 CFR 142.10(b)(6)(vii)	Authority to require CCRs		
40 CFR 142.10(c)	Maintenance of records		
40 CFR 142.10(d)	Variance/exemption conditions (if applicable)		
40 CFR 142.10(e)	Emergency plans		
40 CFR 142.10(f)	Administrative Penalty Authority		

4.3.4 State Reporting and Recordkeeping Checklist [40 CFR 142.14 and 142.15]

The Stage 2 DBPR does not add any state reporting requirements, but does include two state recordkeeping requirements.

The state should use the Primacy Revision Crosswalk in Appendix A to demonstrate that state recordkeeping requirements are consistent with federal requirements. If state requirements are not the same as federal requirements, the state must explain how its requirements are "no less stringent" as per 40 CFR §142.10.

The Primacy Revision Crosswalk includes state recordkeeping requirements indicating that the state must:

- Keep a copy of the decision for systems receiving a very small system waiver until it is reversed or revised. The state must also provide a copy of the decision to the system. [proposed §142.14(a)(8)(i)]

- Keep system IDSE reports, plus any modifications required by the state until reversed or revised in their entirety. [proposed §142.14(a)(8)(ii)]

4.3.5 Special Primacy Requirements [Proposed §142.16]

The Special Primacy Conditions section of the crosswalk is where the state has the opportunity to describe how it will satisfy these provisions. Special primacy conditions pertain to specific regulations where implementation of the rule involves activities beyond general primacy provisions. States must include these rule-distinct provisions in a application for approval or revision of their program. Section 4.4 provides guidance on how states may choose to meet the special primacy requirements of the Stage 2 DBPR.

4.3.6 Attorney General's Statement of Enforceability [40 CFR 142.12(c)(2)]

The complete and final primacy revision application must include an Attorney General's Statement certifying that the state regulations were duly adopted and are enforceable (unless EPA has waived this requirement by letter to the state). The Attorney General's Statement should also certify that the state does not have any audit privilege or immunity laws or, if it has such laws, that these laws do not prevent the state from meeting the requirements of the SDWA. If a state has submitted this certification with a previous revision package, then the state should indicate the date of submittal and the Attorney General need only certify that the status of the audit laws has not changed since the prior submittal. An example of an Attorney General's Statement is presented in Figure 4.3.

4.3.6.1 Guidance For States on Audit Privilege and/or Immunity Laws

In order for EPA to properly evaluate the state's request for approval, the State Attorney General or independent legal counsel should certify that the state's environmental audit immunity and/or privilege and immunity law does not affect its ability to meet enforcement and information gathering requirements under the SDWA. This certification should be reasonably consistent with the wording of the state audit laws and should demonstrate how state program approval criteria are satisfied.

EPA will apply the criteria outlined in its "Statement of Principles" memo issued on February 14, 1997, (http://www.epa.gov/enforcement/planning/state/authorities.html) when determining whether states with audit laws have retained adequate enforcement authority for any authorized federal programs. The principles articulated in the guidance are based on the requirements of federal law, specifically enforcement, compliance, and state program approval provisions of environmental statutes and their corresponding regulations. The principles provide that if provisions of state law are ambiguous, it will be important to obtain opinions from the State Attorney General or independent legal counsel interpreting the law as meeting specific federal requirements. If the law cannot be so interpreted, changes to state laws may be necessary to obtain federal program approval. Before submitting a package for approval, states with audit privilege and/or immunity laws should initiate communications with appropriate EPA regional offices to identify and discuss the issues raised by the state's audit privilege and/or immunity law.

Example 4-3. Example of Attorney General's Statement

Model Language

I hereby certify, pursuant to my authority as (1) and in accordance with the Safe Drinking Water Act as amended, and (2), that in my opinion the laws of the [State/Commonwealth of (3)] [or tribal ordinances of (4)] to carry out the program set forth in the "Program Description" submitted by the (5) have been duly adopted and are enforceable. The specific authorities provided are contained in statutes or regulations that are lawfully adopted at the time this Statement is approved and signed and will be fully effective by the time the program is approved.

Model Language

I. For States with No Audit Privilege and/or Immunity Laws

Furthermore, I certify that [State/Commonwealth of (3)] has not enacted any environmental audit privilege and/or immunity laws.

II. For States with Audit Laws that do Not Apply to the State Agency Administering the Safe Drinking Water Act

Furthermore, I certify that the environmental [audit privilege and/or immunity law] of the [State/Commonwealth of (3)] does not affect the ability of (3) to meet enforcement and information gathering requirements under the Safe Drinking Water Act because the [audit privilege and/or immunity law] does not apply to the program set forth in the "Program Description." The Safe Drinking Water Act program set forth in the "Program Description" is administered by (5); the [audit privilege and/or immunity law] does not affect programs implemented by (5), thus the program set forth in the "Program Description" is unaffected by the provisions of [State/Commonwealth of (3)] [audit privilege and/or immunity law].

III. For States with Audit Privilege and/or Immunity Laws that Worked with EPA to Satisfy Requirements for Federally Authorized, Delegated, or Approved Environmental Programs

Furthermore, I certify that the environmental [audit privilege and/or immunity law] of the [State/Commonwealth of (3)] does not affect the ability of (3) to meet enforcement and information gathering requirements under the Safe Drinking Water Act because [State/Commonwealth of (3)] has enacted statutory revisions and/or issued a clarifying Attorney General's Statement to satisfy requirements for federally authorized, delegated, or approved environmental programs.

Seal of Office

_____
Signature

_____
Name and Title

_____
Date

(1) State Attorney General or attorney for the primacy agency if it has independent legal counsel.
(2) 40 CFR 142.11(a)(6)(i) for initial primacy applications or 40 CFR 142.12(c)(1)(iii) for primacy program revision applications.
(3) Name of state or commonwealth.
(4) Name of tribe.
(5) Name of primacy agency.

4.4 Guidance for the Special Primacy Requirements of the Stage 2 DBPR

In addition to adopting basic primacy requirements specified in 40 CFR 142, states are required to adopt primacy provisions pertaining to specific regulations where implementation of the rule involves activities beyond general primacy provisions. The purpose of these provisions is to allow state flexibility in implementing a regulation that (1) applies to specific system configurations within the particular state and (2) can be integrated with a state's existing PWSS Program. States must include these rule-distinct provisions in an application for approval or revision of their program. This section contains information and guidance that states can use when addressing the special primacy requirements of the Stage 2 DBPR. The guidance addresses special primacy conditions in the same order that they occur in the rule. In the state primacy revision application packages, the state must explain how they intend to accomplish the requirements from proposed §142.16.

4.4.1 Special Primacy Requirements Regarding Very Small System Waivers

Proposed §142.16 Special primacy requirements. (m) Requirements for states to adopt proposed §141, subparts U and V. In addition to the general primacy requirements elsewhere in this part, including the requirements that state regulations be at least as stringent as federal requirements, an application for approval of a state program revision that adopts proposed §141, subparts U and V, must contain a description of how the state will accomplish the following: (1) For PWSs serving fewer than 500 people, a very small system waiver procedure for subpart U IDSE requirements that will apply to all systems that serve fewer than 500 people without the state making a system-by-system waiver determination, if the state elects to use such an authority.

Guidance

States have the authority to waive IDSE requirement for systems serving fewer than 500 people if they determine that the monitoring site approved for Stage 1 DBPR compliance is sufficient to represent both the highest HAA5 and the highest TTHM concentrations (proposed §141.603(c)). States also have the option of issuing blanket IDSE waivers to all systems serving fewer than 500 people or groups of systems without making system-by-system waiver determinations. To issue blanket waivers, states must develop a very small system waiver procedure and submit it as part of their primacy package.

One approach is to consider blanket waivers for systems with small, compact distribution systems that are likely to have short residence times (TTHM and HAA5 levels are less likely to fluctuate in these types of systems). States can use categorization of systems in their state inventory to identify these types of systems for blanket waivers. For example, states may want to consider granting blanket waivers to systems serving mobile home parks with less than 500 residents. Please note, however, that such an approach may not be appropriate for extended rural systems and Subpart H systems.

States can satisfy this special primacy condition by including a copy of the procedure and the rationale they will use to determine that all systems serving fewer than 500 people or groups of systems serving fewer than 500 people can receive a blanket waiver from the IDSE. Alternatively, the state can simply attest that they will not issue any blanket waivers (i.e., all waiver determinations will be made on a system-by-system basis).

Reference for more detailed guidance

Draft Initial Distribution System Evaluation Guidance Manual. EPA XXX-X-XX-XXX, Date.
http://www.epa.gov/ogwdw000/stage2/guides.html

4.4.2 Special Primacy Requirements Regarding System-Specific Studies

Proposed §142.16 Special primacy requirements. (m) Requirements for states to adopt proposed §141, subparts U and V. *In addition to the general primacy requirements elsewhere in this part, including the requirements that state regulations be at least as stringent as federal requirements, an application for approval of a state program revision that adopts proposed §141, subparts U and V, must contain a description of how the state will accomplish the following: (2) A procedure for evaluating system-specific studies under proposed §141.603(a) of this chapter, if system-specific studies are conducted in the state.*

Guidance

System-specific studies use historical data, distribution system models, or other analyses as the basis for selecting Stage 2B compliance monitoring sites. The Stage 2 DBPR allows systems to perform a system-specific study in lieu of the IDSE SMP as long as the study provides equivalent or superior data for selection of Stage 2B sites compared to selection of sites resulting from an SMP (proposed 141.603(a)).

States must develop a procedure for evaluating system-specific studies. This procedure should be based on criteria provided in EPA's *Draft Initial Distribution System Evaluation Guidance Manual*. This manual also provides a detailed description of two study approaches:

(1) The use of historical TTHM and HAA5 data that are equivalent or superior to data that would be obtained under the IDSE SMP.

(2) The use of a calibrated water distribution system hydraulic model and at least one round of new sampling conducted during the month of peak historical TTHM levels (or the month of peak distribution system water temperature if peak TTHM data are not available).

For the first approach, the manual specifies that historical data should be representative of the entire distribution system and meet the overall SMP requirements with respect to number of sites, location of sites, and total number of samples. Historical data should also reflect source water(s) and treatment configuration in place at the time the IDSE report is due. TTHM and HAA5 data should have been analyzed by a certified laboratory. For the second approach, the manual includes minimum model requirements and guidelines for running the model to determine areas of high residence time. The model should be used to select preliminary sites, then systems should perform one round of monitoring at those sites to select final Stage 2B sites. States should review EPA guidance and specify in their procedures if they will use EPA criteria to evaluate these two system-specific study approaches.

EPA recognizes that, in addition to the two approaches described above, there are other combinations of data and analyses that may provide equivalent or superior selection of Stage 2B compliance sites. For instance, tracer studies can be used in combination with historical data to select Stage 2B sites. EPA

draft guidance contains a list of questions that states should ask when evaluating alternative system-specific studies:

- Does the study adequately evaluate the extremities? Does the study target other potential areas with long water residence times?
- If historical data are used, were TTHM and HAA5 samples analyzed by a certified laboratory? Were they collected within the 10 years prior to the IDSE report due date? Do historical data represent distribution system conditions at the time the IDSE report is submitted?
- Does the study cover at least 1 continuous year?
- Are there data representing the month of peak TTHM or highest temperature? Systems must conduct one monitoring period during the peak historical month for TTHM levels or TTHM levels or the month of warmest temperature (proposed §141.602 (a))

States should consider including these questions in their system-specific study evaluation procedures. States can satisfy the special primacy condition regarding system-specific studies by including a copy of this procedure in lieu of IDSE monitoring.

Reference for more detailed guidance

Draft Initial Distribution System Evaluation Guidance Manual. EPA XXX-X-XX-XXX, Date.
http://www.epa.gov/ogwdw000/stage2/guides.html

4.4.3 Special Primacy Requirements Regarding Multiple Consecutive System Entry Points

Proposed §142.16 Special primacy requirements. (m) Requirements for states to adopt proposed §141, subparts U and V. *In addition to the general primacy requirements elsewhere in this part, including the requirements that state regulations be at least as stringent as federal requirements, an application for approval of a state program revision that adopts proposed §141, subparts U and V, must contain a description of how the state will accomplish the following: (3) A procedure for determining that multiple consecutive system entry points from a single wholesale system to a single consecutive system should be treated as a single treatment plant for monitoring purposes.*

Guidance

Monitoring requirements of the Stage 2 DBPR depend on the number of "plants" in a system for those systems that produce some or all of their own water. The rule specifies that consecutive system entry points delivering finished water treated by a disinfectant other than UV, for at least 60 days a year, must be considered as a plant (proposed §141.601(d) and §141.620 (f)). Note that under the IDSE (proposed §141.601(d)), not all consecutive system entry points are considered plants for the purposes of determining monitoring requirements. A consecutive system entry point is a site at which finished water is delivered from a wholesale system to a consecutive system that buys some or all of its water at least 60 days per year (proposed §141.2). To be considered a "plant"under the IDSE, water must be delivered for

60 consecutive days per year. States should be aware of attempts by systems to shut off connections periodically to make the claim that it is not a plant.

To reduce the sampling burden for systems that treat water and have many consecutive system entry points, the Stage 2 DBPR allows systems to consider multiple consecutive system entry points from the same wholesale system as one plant with state approval. In these cases, the system must demonstrate that factors such as relative locations of entry points, residence times, sources, and the presence of treatment (such as corrosion control or booster disinfection) are similar and will not have a significant effect on TTHM and HAA5 formation between the entry points (proposed §141.601(d)).

States must develop procedures for evaluating multiple consecutive system entry points. Conditions where states should consider allowing multiple consecutive system entry points from the same wholesale systems to be one plant include the following:

- Quality of water at the consecutive system entry points is similar (in particular, the same residence time, TTHM/HAA5 levels, and delivered from the same treatment plant).
- TTHM and HAA5 concentrations are low. For example, if a system treats surface water and purchases treated ground water from the same wholesale system at multiple entry points, states should consider the multiple ground water entry points as one plant provided that DBPs and DBP precursor levels (e.g., TOC) are low.
- Consecutive system entry points that feed into the same trunk main, particularly if all entry points are prior to piping connections to other parts of the distribution system.

States should consider including these and other conditions where they will allow multiple consecutive system entry points to be counted as one plant in their primacy package.

States can satisfy the special primacy condition regarding multiple consecutive system entry points studies by including a copy of the procedure and rationale they will use to determine that multiple consecutive system entry points from a single wholesale system to a single consecutive system should be treated as a single treatment plant for monitoring purposes.

Reference for more detailed guidance

Draft Initial Distribution System Evaluation Guidance Manual. EPA XXX-X-XX-XXX, Date.
http://www.epa.gov/ogwdw000/stage2/guides.html

4.4.4 Special Primacy Requirements Regarding Consecutive System Monitoring

Proposed §142.16 Special primacy requirements. (m) Requirements for states to adopt proposed §141, subparts U and V. *In addition to the general primacy requirements elsewhere in this part, including the requirements that state regulations be at least as stringent as federal requirements, an application for approval of a state program revision that adopts proposed §141, subparts U and V, must contain a description of how the state will accomplish the following: (4) A procedure for addressing consecutive systems outside the provisions of proposed §141.29 of this chapter or proposed §141 subparts U and V of this chapter, if the state elects to use such an authority.*

Guidance

40 CFR 141.29 allows states to modify monitoring requirements of consecutive systems to the extent that the interconnection of the systems justifies treating them as a single system for monitoring purposes.

The Stage 2 DBPR gives states the opportunity to specify alternative monitoring requirements for multiple consecutive systems in a combined distribution system. These modifications must not undermine public health protection and all systems, including consecutive systems, must comply with the TTHM and HAA5 MCLs based on the LRAA. However, such a program would allow the state to establish monitoring requirements that account for complicated distribution system relationships, such as where neighboring systems buy from and sell to each other regularly throughout the year, water passes through multiple consecutive systems before it reaches a user, or a large group of interconnected systems have a complicated combined distribution system.

If states choose to address this issue and develop procedures for addressing consecutive systems outside the provisions of the proposed Stage 2 DBPR, they should consider the following:

- As a minimum, each consecutive system must collect at least one sample among the total number of samples required for the combined distribution system. Each consecutive system must base compliance on samples collected within its distribution system. (See 68 *FR* 49583, August 18, 2003, Vol. 68, No. 159.)

- The consecutive system is responsible for ensuring that required monitoring is completed and the system is in compliance.

- The consecutive system may conduct the monitoring itself or arrange for the monitoring to be done by the wholesale system or another outside party. Whatever approach it chooses, the consecutive system must document its monitoring strategy as part of its DBP monitoring plan.

States can satisfy the special primacy condition regarding consecutive system monitoring by including a copy of the procedure they will use for addressing consecutive systems outside the provisions of §141.29. Alternatively, states can simply attest that they will not use an authority to address consecutive system monitoring outside of §141.29.

Reference for more detailed guidance

4.4.5 Special Primacy Requirements Regarding Significant Excursions

Proposed §142.16 Special primacy requirements. (m) Requirements for states to adopt proposed §141, subparts U and V. *In addition to the general primacy requirements elsewhere in this part, including the requirements that state regulations be at least as stringent as federal requirements, an application for approval of a state program revision that adopts proposed §141, subparts U and V, must contain a description of how the state will accomplish the following: (5) A procedure for systems to identify significant excursions.*

Guidance

The Stage 2 DBPR, under Stage 2B, requires systems to meet an LRAA of 0.080 mg/L for TTHM and 0.060 mg/L for HAA5 at each monitoring location in the distribution system (proposed §141.64(b)(3)). Because the individual samples are averaged over 1 year to determine compliance with the Stage 2 DBPR, the DBP levels at a given location can fluctuate throughout the year. This is normal and generally the result of seasonal changes in water temperature and/or organic content. However, there may be individual sample occurrence levels that exceed the MCL even when the system is in compliance with an LRAA MCL. There is concern about exposures to peak levels of DBPs and the possible risk they might pose.

States must define the criteria for determining that a significant DBP excursion has occurred as a special primacy condition of the Stage 2 DBPR. One approach a state might use in identifying a significant excursion is to define a maximum concentration that, if exceeded, would require an evaluation. For example, a state may define a significant DBP excursion as any compliance sample that exceeds the following:

- TTHM concentration of 0.100 mg/L.
- HAA5 concentration of 0.075 mg/L.

Another approach a state may take to defining a significant DBP excursion is to compare results from individual quarterly measurement from compliance monitoring with the LRAAs computed for that period. Using 0.040 mg/L for TTHM and 0.030 mg/L for HAA5 as a benchmark, a significant excursion may occur under the following conditions:

- For TTHM, if the difference between a quarterly location measurement and the quarterly LRAA is >0.030 mg/L and the LRAA is ≥0.040 mg/L for TTHM, a significant excursion has occurred.
- For HAA5, if the difference between a quarterly location measurement and the quarterly LRAA is >0.025 mg/L and the LRAA is ≥0.030 mg/L for HAA5, a significant excursion has occurred.

In addition to the approaches briefly described above, there are other approaches that may be appropriate. EPA's *Draft Significant Excursion Guidance Manual* provides examples for defining significant excursions and evaluating system data to determine when a significant excursion has occurred.

States can satisfy the special primacy condition regarding significant excursions by including a copy of the procedure they will use for identifying when a system has a significant excursion.

Reference for more detailed guidance

Draft Significant Excursions Guidance Manual. EPA 815-D-03-004, July 2003. (http://www.epa.gov/ogwdw000/stage2/guides.html)

Section 5

SDWIS Reporting and SNC Definitions

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5.1 Safe Drinking Water Information System Reporting Under the Stage 2 DBPR

Safe Drinking Water Information System/Federal version (SDWIS/FED) is EPA's national database of routine information about the nation's drinking water. Designed to replace the system known as Federal Reporting Data System(FRDS) , SDWIS/FED stores the information EPA needs to monitor approximately 175,000 PWSs.

States supervise drinking water systems within their jurisdictions to ensure that each PWS meets state and EPA standards for safe drinking water. The SDWA requires states to report drinking water information periodically to EPA. This information is maintained in SDWIS/FED.

States report the following information to EPA:

- Basic information on each water system, including: name, ID number, number of people served, type of system (year-round or seasonal), and source of water (ground water or surface water).

- Violation information for each water system, including whether it has followed established monitoring and reporting schedules, complied with mandated treatment techniques, or violated any MCLs.

- Enforcement information like what actions states have taken to ensure that drinking water systems return to compliance if they are in violation of a drinking water regulation.

- Sampling results for unregulated contaminants and for regulated contaminants when the monitoring results exceed the MCL.

EPA uses this information to determine if and when it needs to take action against non-compliant systems, oversee state drinking water programs, track contaminant levels, respond to public inquiries, and prepare national reports. EPA also uses this information to evaluate the effectiveness of its programs and regulations and to determine whether new regulations are needed to further protect public health.

5.1.1 Federally Reported Violations

Under SDWIS/FED reporting, states only report when violations occur. In the interest of reducing the reporting burden on states, EPA has limited the number and type of violations to be reported to SDWIS/FED. However, PWSs must still keep records and report all required information to the state. Any violation, whether included in the accompanying table or not, is a basis for a state or federal enforcement action.

Table 5-1 summarizes the violation and contaminant codes that will be used to report violations of the Stage 2 DBPR to SDWIS/FED.

Table 5-1. SDWIS/FED Codes for Federal Reporting Under the Stage 2 DBPR

Violation Code	Contaminant Code	
		MCL Violations
02	2950	Exceedance of TTHM MCL of 0.120 mg/L measured as an LRAA.
02	2456	Exceedance of HAA5 MCL of 0.100 mg/L measured as an LRAA.
02	2950	Exceedance of TTHM MCL of 0.080 mg/L measured as an LRAA.
02	2456	Exceedance of HAA5 MCL of 0.060 mg/L measured as an LRAA.
		Monitoring and Reporting (M&R) Violations
03	2950 2456	Failure to collect or report LRAAs and compliance calculations for TTHM and HAA5 samples.
39	DBP2	Failure to conduct an IDSE and submit an IDSE report, or to use an IDSE alternative.
39	DBP2	Failure to develop or implement a monitoring plan for TTHM and HAA5 sampling.
03	1011	Failure to return to routine from reduced monitoring of bromate.
		Recordkeeping Violations
09	DBP2	Failure to maintain records of microbiological and turbidity analyses.
09	DBP2	Failure to maintain copies of monitoring plans.

Table 5.2 contains the federally reportable violations for the Stage 2 DBPR in more detail. These violations are listed by contaminant or requirement and violation type. The table includes the SDWIS/FED reporting codes, the regulatory citation, system type affected, a detailed description of the violation, and the initial compliance date. This table will allow a user to better understand violations listed in SDWIS. For more information on how to report Stage 2 DBPR violations to SDWIS, please refer to Appendix D.

Table 5-2. Federal Reporting for the Stage 2 DBPR

SDWIS Reporting Code	Regulated Contaminant/ Requirement	Citation	Violation Type	System Size and Type Affected	Violation	Initial Compliance Date
1	2	3	4	5	6	7
MCL Violation						
02/2950	TTHM MCL	proposed §141.136	MCL	Applies to NTNCWSs and CWSs adding primary or residual disinfectant other than UV or delivering such water.	Exceedance of TTHM MCL of 0.120 mg/L measured as an LRAA.	Quarterly violations of quarterly duration beginning 3 years after rule promulgation.
02/2456	HAA5 MCL	proposed §141.136	MCL	Applies to NTNCWSs and CWSs adding primary or residual disinfectant other than UV or delivering such water.	Exceedance of HAA5 MCL of 0.100 mg/L measured as an LRAA.	Quarterly violations of quarterly duration beginning 3 years after rule promulgation.
02/2950	TTHM MCL	proposed §141.620	MCL	Applies to NTNCWSs and CWSs adding primary or residual disinfectant other than UV or delivering such water.	Exceedance of TTHM MCL of 0.080 mg/L measured as an LRAA.	Quarterly violations of quarterly duration beginning 6 years after rule promulgation.
02/2456	HAA5 MCL	proposed §141.620	MCL	Applies to NTNCWSs and CWSs adding primary or residual disinfectant other than UV or delivering such water.	Exceedance of HAA5 MCL of 0.060 mg/L measured as an LRAA.	Quarterly violations of quarterly duration beginning 6 years after rule promulgation.

SDWIS Reporting Code	Regulated Contaminant/ Requirement	Citation	Violation Type	System Size and Type Affected	Violation	Initial Compliance Date
1	2	3	4	5	6	7
M&R Violation						
03/2950, 03/2456	Monitoring & Reporting for TTHM and HAA5	proposed §141.64(b) proposed §141.136 proposed §141.620(d) proposed §141.605 proposed §141.621	M&R	Applies to NTNCWSs and CWSs adding primary or residual disinfectant other than UV or delivering such water. For systems on annual and triennial periods, use the begin date and end date of those periods.	Failure to collect or report LRAAs and compliance calculations for TTHM and HAA5 samples.	First day of the quarter (or annual or triennial period begin date) in which one or more samples are missed.
39/DBP2	IDSE, IDSE Report, and IDSE Alternative	proposed §141.600 proposed §141.601 proposed §141.602 proposed §141.603 proposed §141.604	M&R	Applies to NTNCWSs serving at least 10,000 people and CWSs that add primary or residual disinfectant other than UV or deliver such water.	Failure to conduct an IDSE and submit an IDSE report or to use an IDSE alternative.	Either when the IDSE report is due or when the state becomes aware of the failure to conduct the IDSE (beginning 2 years after rule promulgation).
39/DBP2	Developing Monitoring Plan	proposed §141.136 proposed §141.622	M&R	Applies to NTNCWSs and CWSs adding primary or residual disinfectant other than UV or delivering such water.	Failure to develop or implement a monitoring plan for TTHM and HAA5 sampling.	Either when the monitoring plan is due or when the state becomes aware of the failure to implement the monitoring plan (beginning 6 years after rule promulgation).

SDWIS Reporting Code	Regulated Contaminant/ Requirement	Citation	Violation Type	System Size and Type Affected	Violation	Initial Compliance Date
1	2	3	4	5	6	7
03/1011	Bromate Monitoring	proposed §141.132(b)(3)(ii)	M&R	Applies to CWSs and NTNCWSs that use ozone as a disinfectant or oxidant and are on reduced (quarterly) monitoring. Systems must analyze samples using Method 317.0 Revision 2.0, 326.0, or 321.8.	Failure to return to routine from reduced monitoring of bromate.	First day of the quarter when system fails to return to routine monthly monitoring if RAA of bromate is ≥0.0025 mg/L for reduced quarterly monitoring or if samples were not analyzed using an approved method (beginning 3 years after rule promulgation).
Recordkeeping Violations						
09/DBP2	Maintaining Microbiological and Turbidity Analyses	proposed §141.33(a)	Record-keeping	Applies to NTNCWSs and CWSs adding primary or residual disinfectant other than UV or delivering such water. Changes wording of existing recordkeeping requirements in 40 CFR 141.33(a).	Failure to maintain records of microbiological and turbidity analyses.	When system discards records or state becomes aware the records have been discarded.
09/DBP2	Maintaining Monitoring Plans	proposed §141.33(f)	Record-keeping	Applies to NTNCWSs and CWSs adding primary or residual disinfectant other than UV or delivering such water.	Failure to maintain copies of monitoring plans.	When system discards monitoring plans or state becomes aware the plans have been discarded.

5.2 Stage 2 DBPR - SNC Definition

Draft SNC Definitions for the Stage 2 DBPR

Significant non-compliers (SNCs) are CWSs, NTNCWSs, and TNCWSs that have serious, frequent, or persistent violations. The criteria that designate a system as an SNC vary by contaminant. Once a system is designated as an SNC, it is subject to EPA's "timely and appropriate policy." SNCs that have not returned to compliance or are not addressed timely and appropriately are called Exceptions. Timeliness for SNCs is 8 months after the system became an SNC. (The state has 2 months to determine and become aware of the system's SNC status and 6 months in which to complete the follow-up/enforcement action.) The types of actions considered appropriate include the issuance of a formal state or federal administrative or compliance order, a civil or criminal referral to the state's Attorney General or Department of Justice, or a state bilateral compliance agreement signed by both the state and the violator. The following are SNC definitions for the Stage 2 DBPR.

[SNC definitions under development by OECA.]

5.3 Stage 2 DBPR Data Entry Instructions

EPA is developing a draft Data Entry Instructions for the Stage 2 DBPR. This manual will include examples and instruction on determining proper violations and violation codes for the requirements of the Stage 2 DBPR (see Appendix D).

Section 6

Public Notification and Consumer Confidence Report Examples

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This section provides examples of violations that systems may incur under the Stage 2 DBPR. These examples address the public notification and CCR requirements for systems that incur these kinds of violations. Public notification and notification in the CCR are required follow-up activities for violations of the National Primary Drinking Water Regulations. Also included in the examples are sample public notices and sample excerpts from CCR reports that would meet these public notification and CCR requirements. In the public notification samples, the language in italics is required in Appendix B to Subpart Q of 40 CFR 141. The examples in this section are adapted from examples in the *Draft Primacy Agency Data Entry Instructions, with Examples, for the Stage 2 Disinfectants and Disinfection Byproducts Rule* (see Appendix D). For more information on SDWIS reporting, refer to this draft manual and the examples contained therein.

Example 1: TTHM MCL Violation

System Description - System A

System A is a small Subpart H system that uses two large ground water wells determined to be under the direct influence of surface water. The system treats the water from each well by filtration through cartridge and bag filters and by disinfection with chlorine gas on a full-time basis. The system utilizes two filtration/disinfection treatment plants known as TP 1 and TP 2.

Population Served:	8,200
Source #1:	Well 1
Treatment:	Filtration, chlorine
Source #2:	Well 2
Treatment:	Filtration, chlorine

This system is required to comply with the TTHM and HAA5 RAA requirement under the Stage 1 DBPR, LRAA requirement under the Stage 2A, and the LRAA requirement under the Stage 2B. This system is also required to submit an IDSE report to their state by [insert 48 months after rule promulgation] and to submit a new monitoring plan under Stage 2B prior to the date they are required to comply with the Stage 2B requirements (either 90 or 102 months after rule promulgation). System A is not required to conduct *Cryptosporidium* monitoring under the LT2ESWTR, so it must comply with Stage 2B by [insert 90 months after rule promulgation]. For compliance with Stage 2A, System A's qualified operator collects and has a certified laboratory analyze one sample per plant for TTHM (and HAA5) during the first month of each quarter in a location within the distribution system that represents maximum residence time. Note that for compliance with Stage 2B, System A will be required to collect two dual sample sets per quarter per treatment plant at representative high TTHM and HAA5 sites, as determined by the IDSE.

In an effort to enhance operational control and better protect public health, the operator also collects and analyzes one sample per treatment plant at the points of maximum residence time during the second and third months of each quarter. These additional compliance samples are described in the system monitoring plan submitted to the primacy agency under the Stage 1 DBPR.

The operator takes the TTHM samples during times when the disinfection systems are operating under normal conditions and collects the samples at the locations (i.e., points of maximum residence time) and according to the schedule specified in the provisions of the system's processes monitoring plan.

Situation

Table 6-1 summarizes the Stage 2A TTHM monitoring results for 200X [insert 36 months after rule promulgation]. In December 200X, System A's operator collects the fourth scheduled set of two TTHM samples (one per plant at the point of maximum residence time) for the fourth quarter of 200X. The operator enters the values on the TTHM monitoring forms. Since the operator has collected two sets of samples during the fourth quarter, the operator calculates a quarterly arithmetic average concentration for each treatment plant. The quarterly averages of all TTHM samples collected for the fourth quarter are 0.300 mg/L for treatment plant 1 and 0.078 mg/L for treatment plant 2. Then the operator uses the third quarter's averages of 0.200 mg/L and 0.072 mg/L for treatment plants 1 and 2, respectively, and the

second quarter's averages of 0.063 mg/L and 0.059 mg/L, respectively. In addition the system also uses 0.030 mg/L and 0.020 mg/L, respectively from the first quarter.

Table 6-1. System A 200X TTHM Monitoring Results

Quarter		Distribution System Results (mg/L)		
		TP 1	**TP 2**	**Average of TP1 & TP2 for RAA**
200X Q1		0.030	0.020	0.025
200X Q2		0.063	0.059	0.061
200X Q3		0.200	0.072	0.136
200X Q4		0.300	0.078	0.189
Compliance Calculation	**Sum**	0.593	0.229	0.411
	÷ 4	0.148	0.057	0.103
	4th Quarter LRAA	0.148 > 0.120	0.057 < 0.120	
	4th Quarter RAA			0.103 > 0.080

Public Notification and Consumer Confidence Report Requirements

System A has completed a full year of monitoring under Stage 2A and must use this data to compute LRAAs for quarters in the current year. The operator sums quarterly results from the four quarters of 200X and divides by 4 to determine LRAA compliance with the Stage 2A MCL of 0.120 mg/L. The result for treatment plant 1 is 0.148 mg/L; therefore, the operator must report an MCL violation since the sum of the available quarterly results for treatment plant 1 divided by 4 is greater than the MCL of 0.120 mg/L. The LRAA for the other plants below the MCL. In addition, the system must calculate the RAA of the two treatment plants as required by the Stage 1 DBPR. The system must also report an MCL violation of the Stage 1 DBPR since the sum of the averaged quarterly results for both treatment plant divided by 4 is greater than the MCL of 0.080 mg/L.

This is a MCL violation and requires Tier 2 public notification. The system must provide public notification within 30 days of learning of the violation. Notification must be provided by mail or other direct delivery method (such as hand delivery), and any other reasonable method to reach affected individuals that would not have received the information by mail or the direct delivery method used. The system was aware of the violation on January 5, 200X+1.

An example of a public notice that fulfills the public notification requirements for these violations is shown in Example 6.1.

All MCL violations must also be included in the CCR. An explanation of how the system returned to compliance could also be included. An example of a report of these violations that could be used in the system's CCR is shown in Example 6.2.

Example 6-1. Example Tier 2 Public Notification for TTHM MCL Violation

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
TTHM MCL Violation at System A

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results from December 200X show that our system exceeds the standard, or maximum contaminant level (MCL), for total trihalomethanes (TTHMs). We became aware of this situation on January 5, 200X+1. The standards for TTHMs are 0.080 mg/L averaged over the entire system for a year and 0.120 mg/L at any individual monitoring location averaged over the year. The level of TTHMs averaged over the entire system for a year was 0.103 mg/L and the average for treatment plant 1 over the last year was 0.148 mg/L.

What should I do?

There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791. If you have specific health concerns, consult your doctor.

You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on Channel 22 or Radio Station KMMM (97.3 FM).

What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

What is being done?

TTHMs are four volatile organic chemicals which form when disinfectants react with natural organic matter in the water. We are working to minimize the formation of TTHMs while ensuring an adequate level of disinfection to protect customers from exposure to bacteria. We have since taken samples at this location and throughout the system and had them tested. They show that we meet the standards.

For more information, please contact John Johnson, manager of System A, at 555-1234 or write to 2600 Winding Rd., Townsville, SA 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by System A.

State Water System ID# SA1234582. Sent: January 10, 200X+1

Example 6-2. Example of a Notice in the CCR for TTHM MCL Violation

Water Quality Data

Contaminant	MCL	MCLG	Detected	Date	Violation	Source
TTHMs [Total trihalomethanes] (ppb) (RAA)	80	0	Avg=103 Range: 25 - 189	September 200X	Yes*	By-product of drinking water chlorination
TTHMs [Total trihalomethanes] (ppb) (LRAA)	120	0	Avg=148 Range: 30 - 300	September 200X	Yes*	By-product of drinking water chlorination

*System A exceeded the MCL for TTHMs at the end of December. The system's running annual average (RAA) for the entire system was 103 ppb and the locational running annual average for treatment plant 1 was 148 ppb. More information about this violation is provided in the violation section.

Violation

- Testing results from December 200X show that our system exceeds the standard, or maximum contaminant level (MCL), for total trihalomethanes (TTHMs). The standards for TTHMs are 0.080 mg/L averaged over the entire system for a year and 0.120 mg/L at any individual monitoring location averaged over the year. The level of TTHMs averaged over the entire system for a year was 0.103 mg/L and the average at treatment plant 1 over the last year was 0.148 mg/L. TTHM are four volatile organic chemicals which form when disinfectants react with natural organic matter in the water. We are working to minimize the formation of TTHMs while ensuring an adequate level of disinfection to protect customers from exposure to bacteria.

  We have since taken samples at this location and throughout the system and had them tested. They show that we meet the standards.

System Description - System B

System B is a large Subpart H CWS that uses a lake as its source and meets the Subpart H filtration avoidance criteria. The system supplies water disinfected with UV light and treated with chlorine to meet the disinfection requirements of the SWTR. The system utilizes only one source and one treatment plant. The MCL established in the Stage 1 DBPR for HAA5 is 0.060 mg/L and compliance is based upon an RAA computed quarterly of quarterly averages. System B is also required to calculate the LRAA at the end of the 4th calendar quarter [insert 36 months after rule promulgation] and to ensure that each location complies with the Stage 2A MCL for HAA5 of 0.100 mg/L. Beginning [insert 72 months after rule promulgation], System B will need to calculate LRAA to comply with the Stage 2B MCL for HAA5 of 0.060 mg/L at each sampling location.

Population Served:	58,000
Source #1:	Surface water
Treatment:	Successfully avoiding filtration, UV, chlorine

Each quarter (i.e., approximately every 90 days), System B's qualified operator collects four distribution samples and has them analyzed by a certified laboratory for HAA5. RAAs are calculated based on samples taken. System B will calculate RAAs which must comply with the MCLs set forth in the Stage 1 DBPR and beginning [insert date 48 months after rule promulgation] will calculate LRAAs to ensure the system complies with an HAA5 Stage 2A MCL of 0.100 mg/L. Seventy-two months after rule promulgation, the operator will begin collecting samples at the locations specified in the new monitoring plan (which is based on Stage 1 DBPR, and the monitoring required under the IDSE), which will specify the 2 locations in the system with the highest TTHM levels, the location in the system with the highest HAA5 levels, and at least one of the compliance monitoring locations identified in the Stage 1 DBPR.

Example 2: HAA5 RAA MCL Violation

Situation

Table 6-2 summarizes the HAA5 monitoring results for 200Z [insert date 48 months after rule publication]. On June 20, 200Z, System B's operator collects the four required HAA5 samples in the distribution system for the second quarterly period of 200Z. The results are 0.071 mg/L for location 1, 0.054 mg/L for location 2, 0.080 mg/L for location 3, and 0.071 mg/L for location 4. The operator calculates an arithmetic average of the values and records the result on the HAA5 monitoring sheet. The arithmetic average for all sites for the second quarter of 200Z is 0.069 mg/L. The quarterly averages for the previous 3 quarters are: 0.042 mg/L, 0.092 mg/L, and 0.093 mg/L. The RAA for this period is 0.074 mg/L.

Table 6-2. System B Second Quarter 200Z HAA5 Monitoring Results

Quarter		**Plant #1 Distribution System Results (mg/L)**				
		Location 1	**Location 2**	**Location 3**	**Location 4**	**Average of 4 locations for RAA**
Quarter 3 200Z-1		0.028	0.042	0.045	0.052	0.04175
Quarter 4 200Z-1		0.109	0.037	0.124	0.098	0.092
Quarter 1 200Z		0.089	0.062	0.091	0.129	0.09275
Quarter 2 200Z		0.071	0.054	0.080	0.071	0.069
Compliance Calculation	**Sum**	0.297	0.195	0.34	0.35	0.2955
	÷ 4	0.074	0.049	0.085	0.088	0.074
	2nd Quarter LRAA	0.074 < 0.100	0.049 < 0.100	0.085 < 0.100	0.088 < 0.100	
	2nd Quarter RAA					0.074 > 0.060

Public Notification and Consumer Confidence Report Requirements

System B is in compliance with the Stage 2A MCL for HAA5 at the end of June, 200Z for each sampling location. However, System B is not in compliance based on RAA. Therefore the system must provide public notice and information in their CCR in order to comply with the Stage 1 DBPR requirements. The system was aware of the violation on June 30, 200Z.

This is a MCL violation and requires Tier 2 public notification. The system must provide public notification within 30 days of learning of the violation. Notification must be provided by mail or other direct delivery method (such as hand delivery), and any other reasonable method to reach affected individuals that would not have received the information by mail or the direct delivery method used. For any unresolved violation following an initial Tier 2 notice, notice must be repeated every 3 months for as long as the violation persists.

An example of a public notice that fulfills the public notification requirements for this violation is shown in Example 6.3.

All MCL violations must also be included in the CCR. An explanation of how the system returned to compliance could also be included. An example of a report of this violation that could be used in the system's CCR is shown in Example 6.4.

Example 6-3. Example Tier 2 Public Notification for HAA5 RAA MCL Violation

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
HAA5 RAA MCL Violation at System B

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results from June 200X show that our system exceeds the standard, or maximum contaminant level (MCL), for haloacetic acids (HAA5s). The standards for HAA5s are 0.060 mg/L averaged over the entire system for a year and 0.100 mg/L at any individual monitoring location averaged over the year. The level of HAA5s averaged over the entire system for a year was 0.074 mg/L. However the average at each individual monitoring location was below the standard.

What should I do?

There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791. If you have specific health concerns, consult your doctor.

You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on Channel 22 or Radio Station KMMM (97.3 FM).

What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

What is being done?

HAA5s are a group of chemicals that are formed when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. We are working to minimize the formation of HAA5s while ensuring an adequate level of disinfection to protect customers from exposure to bacteria. We have since taken samples at this location and through out the system and had them tested. They show that we meet the standards.

For more information, please contact John Johnson, manager of System B, at 555-1234 or write to 2600 Winding Rd., Townsville, SA 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by System B.

State Water System ID# SA1234582. Sent: July 31, 200X

Example 6-4. Example of a Notice in the CCR for HAA5 RAA MCL Violation

Water Quality Data

Contaminant	MCL	MCLG	Detected	Date	Violation	Source
Haloacetic Acids (HAA) (ppb) (RAA)	60	0	Avg=74	June 200X	Yes*	By-product of drinking water chlorination
Haloacetic Acids (HAA) (ppb)(LRAA)	100	0	Avg=74 Avg-49 Avg=85 Avg-88		No	By-product of drinking water chlorination

*System B exceeded the MCL for HAA5s. At the end of June the system's running annual average (RAA) for the entire system was 74 ppb, however the locational running annual average for all four locations was below the MCL. More information about this violation is provided in the violation section.

Violation

- Testing results from June 200X show that our system exceeds the standard, or maximum contaminant level (MCL), for haloacetic acids (HAA5s). The standards for HAA5s are 0.060 mg/L averaged over the entire system for a year and 0.100 mg/L at any individual monitoring location averaged over the year. The level of HAA5s averaged over the entire system for a year was 0.074 mg/L. However the average at each individual monitoring location was below the standard. HAA5s are a group of chemicals that are formed when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. We are working to minimize the formation of HAA5s while ensuring an adequate level of disinfection to protect customers from exposure to bacteria.

  We have since taken samples at this location and through out the system and had them tested. They show that we meet the standards.

Example 2: HAA5 MCL Violation

Situation

On May 20, 200X [insert date 48 months after rule promulgation], System B's operator collects the four required HAA5 samples in the distribution system for the second quarterly period of 200X. The results are 0.009 mg/L for location 1, 0.010 mg/L for location 2, 0.068 mg/L for location 3, and 0.355 mg/L for location 4. The operator calculates an arithmetic average of the values for each sampling location by using the results from quarters 3 and 4 from the previous year and the results from quarters 1 and 2 from the current year and records the result on the HAA5 monitoring sheet shown in Table 6-3. The LRAA is 0.060 mg/L for location 1, 0.0168 mg/L for location 2, 0.053 mg/L for location 3, and 0.109 mg/L for location 4.

Table 6-3. System B 200X HAA5 Monitoring Results

Month/Quarter		Plant #1 Distribution System Results (mg/L)				
		Location 1	**Location 2**	**Location 3**	**Location 4**	**Average of all Locations for RAA**
August 200(X-1)/Quarter 3		0.050	0.022	0.050	0.030	0.038
November 200(X-1)/Quarter 4		0.041	0.018	0.034	0.008	0.025
Feb 200X/Quarter 1		0.038	0.012	0.060	0.041	0.038
May 200X/Quarter 2		0.109	0.010	0.068	0.355	0.136
Compliance Calculation	**Sum**	0.238	0.062	0.212	0.434	0.237
	÷ 4	0.060	0.016	0.053	0.109	0.059
	2nd Quarter LRAA	0.060 < 0.100	0.016 < 0.100	0.053 < 0.100	0.109 > 0.100	
	2nd Quarter RAA					0.059 > 0.060

Public Notification and Consumer Confidence Report Requirements

System B is in violation of the HAA5 Stage 2A MCL. At the end of June 200X, the operator must use the methodology for calculating the LRAA. The first quarter value for location 4 is 0.041 mg/L and the second quarterly value for location 4 is 0.0.355 mg/L. The operator then adds the historical data from quarter 3 and quarter 4 of 200X-1 to the locational results from quarter 1 and quarter 2 of 200X and calculates the LRAA for location 4 as 0.109 mg/L The LRAA exceeds the HAA5 Stage 2A MCL of 0.100 mg/L. A violation of the HAA5 MCL at the end of June 200X must be reported for the compliance period April 1, 200X to June 30, 200X. The system was aware of the violation in May 200X [insert date 48 months after rule promulgation]. In addition, the system must calculate the RAA for the system as required by the Stage 1 DBPR. However the system is in compliance with the MCL of the Stage 1 DBPR since the sum of the averaged quarterly results for both treatment plant divided by 4 is less than the MCL of 0.080 mg/L.

Beginning January 1, 200Z, System B must comply with the requirements of the LT2ESWTR as well as the requirements of the Stage 1 DBPR and Stage 2 DBPR. One LT2ESWTR requirement is that water systems avoiding filtration must comply with the requirements of the Stage 1 DBPR and Stage 2 DBPR as a condition of their filtration avoidance determination. Since, System B has violated the HAA5 MCL and is therefore not in compliance with the Stage 2 DBPR, it is no longer is eligible for filtration avoidance and therefore the system is required to install filtration.

This is an MCL violation and requires Tier 2 public notification. The system must provide public notification within 30 days of learning of the violation. Notification must be provided by mail or other direct delivery method (such as hand delivery), and any other reasonable method to reach affected individuals that would not have received the information by mail or the direct delivery method used. For

any unresolved violation following an initial Tier 2 notice, notice must be repeated every 3 months for as long as the violation persists. An example of a public notice that fulfills the public notification requirements for these violations is shown in Example 6.5.

All MCL violations must also be included in the CCR. An explanation of how the system returned to compliance could also be included. An example of a report of these violations that could be used in the system's CCR is shown in Example 6.6.

Example 6-5. Example Tier 2 Public Notification for HAA5 MCL Violation

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
HAA5 MCL Violation at System B

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results from May 200X show that our system exceeds the standard, or maximum contaminant level (MCL), for haloacetic acids (HAA5s). We became aware of this situation on July 5, 200X. The standards for HAA5s are 0.060 mg/L averaged over the entire system for a year and 0.100 mg/L at any individual monitoring location averaged over the year. The level of HAA5s averaged over the entire system for a year was 0.093 mg/L and the average at location 4 over the last year was 0.172 mg/L.

What should I do?

There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791. If you have specific health concerns, consult your doctor.

You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on Channel 22 or Radio Station KMMM (97.3 FM).

What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

What is being done?

HAA5s are a group of chemicals that are formed when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. We are working to minimize the formation of HAA5s while ensuring an adequate level of disinfection to protect customers from exposure to bacteria. We have since taken samples at this location and throughout the system and had them tested. They show that we meet the standards.

For more information, please contact John Johnson, manager of System B, at 555-1234 or write to 2600 Winding Rd., Townsville, SA 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by System B.

State Water System ID# SA1234582. Sent: July 10, 200X

Example 6-6. Example of a Notice in the CCR for HAA5 MCL Violation

Water Quality Data

Contaminant	MCL	MCLG	Detected	Date	Violation	Source
Haloacetic Acids (HAA) (ppb) (RAA)	60	0	Avg=93 Range: 25 - 272	May 200X	Yes*	By-product of drinking water chlorination
Haloacetic Acids (HAA) (ppb)(LRAA)	100	0	Avg=172 Range: 8 - 610	May 200X	Yes*	By-product of drinking water chlorination

*System B exceeded the MCL for HAA5s. At the end of June the system's running annual average (RAA) for the entire system was 93 ppb and the locational running annual average for location 4 was 172 ppb. More information about this violation is provided in the violation section.

Violation

- Testing results from May 200X show that our system exceeds the standard, or maximum contaminant level (MCL), for haloacetic acids (HAA5s). The standards for HAA5s are 0.060 mg/L averaged over the entire system for a year and 0.100 mg/L at any individual monitoring location averaged over the year. The level of HAA5s averaged over the entire system for a year was 0.093 mg/L and the average at location 4 over the last year was 0.172 mg/L. HAA5s are a group of chemicals that are formed when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. We are working to minimize the formation of HAA5s while ensuring an adequate level of disinfection to protect customers from exposure to bacteria.

  We have since taken samples at this location and throughout the system and had them tested. They show that we meet the standards.

Example 4: LRAA and Compliance Calculations for TTHM and HAA5 M&R Violations

System Description - System D

System D is a small Subpart H system serving 8,900 people to which the requirements of Stage 2 DBPR are applicable on or before [insert 90 months following publication] if no *Cryptosporidium* monitoring is required and [insert 102 months following publication] if *Cryptosporidium* monitoring is required under proposed §141.706(c).

The system uses surface water treated in one conventional filtration plant. The system uses chlorine as a chemical disinfectant applied at one location and must monitor TTHM and HAA5 according to the requirements of proposed §141.621(a). Samples must be taken in the distribution system at a frequency of two dual sample sets every 90 days per treatment plant. One quarterly set must be taken during the peak historical month for DBP concentrations. All monitoring must take place at the locations recommended to the primacy agency in the IDSE report submitted under proposed §141.600–605.

Population Served:	8,900
Source:	Surface water
Treatment:	Conventional filtration, chlorine

Situation

Table 6-4 presents a summary of System D's TTHM and HAA5 monitoring results for year 200X [insert date 48 months after rule publication].

Table 6-4. System D 200X TTHM and HAA5 Monitoring Results (mg/L)

	200X-1						200X						
Parameter	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	LRAA
TTHM MCL = 0.080 mg/L			0.068 0.072			0.070 0.070			0.070 0.068			NS NS	0.069 0.070
HAA5 MCL = 0.060 mg/L			0.042 0.040			0.055 0.060			0.038 0.046			NS NS	0.045 0.049

NS=No sample taken
LRAA=Locational running annual average

On July 1, 200X, System D's operator reviews the data for the first and second quarters of 200X. System D did not complete the necessary monitoring of TTHM and HAA5 for the second quarter of 200X.

Public Notification and Consumer Confidence Report Requirements

System D's sampling record shows a major monitoring and reporting (M&R) violation in the second quarter of 200X resulting from a failure to take at least 90% of the required samples. In this case, when only one sample per quarter is required, the failure to take it is a major M&R violation for the quarter. In this case, when the system failed to take both samples required for the second quarter, it is a major M&R violation for the second quarter of 200X and must be reported to SDWIS for both TTHM and HAA5.

The system must provide Tier 3 public notice of the violation. The system must provide public notification within 1 year of learning of the violation. Notification must be provided by mail or other direct delivery method (such as hand delivery), and any other reasonable method to reach affected individuals that would not have received the information by mail or the direct delivery method used. Notice must be provided to each customer receiving a bill and other service connections to which water is delivered.

Since System D is a community water system, it could use the CCR to inform the public of the Tier 3 violations if the CCR is released within 1 year of the system's learning of the violations. For this particular example, the system became aware of the violations on July 1, 200X [insert date 48 months after rule promulgation]. The public could therefore be informed of the violation in the CCR produced

for calendar year 200X if the CCR is released prior to July 1, 200X+1 (the CCR for calendar year 200X-1 is required to be released by July 1, 200X, for compliance with the CCR Rule). In this situation, additional public notification would not be required. However, whether public notification is provided by the CCR for calendar year 200X-1 or by other means, this violation would still have to be reported by the system in the CCR produced for calendar year 200X, since all violations of National Primary Drinking Water Rules must be reported in the CCR for the calendar year in which the system became aware of the violation. The violation report in the CCR should include similar information contained in the public notice.

An example of a public notice that fulfills the public notification requirements for this violation is shown in Example 6.7. An example of a report of this violation in the CCR is shown in Example 6.8.

Example 6-7. Example Tier 3 Public Notification for LRAA and Compliance Calculations for TTHM and HAA5 M&R Violations

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Monitoring and Reporting Requirements Not Met for System D

Our water system recently failed to collect the correct number of drinking water samples. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

We routinely monitor for the presence of drinking water contaminants. In June 200X our system failed to collect the required number of samples to test for total trihalomethanes (TTHMs) and haloacetic acids (HAA5s) in our drinking water. We became aware of this situation on July 1, 200X. Using the data we have collected over the past year, we are not in violation of the standards for either TTHM or HAA5s. The standards for TTHMs are 0.080 mg/L averaged over the entire system for a year and 0.120 mg/L at any individual monitoring location averaged over the year and for HAA5s are 0.060 mg/L averaged over the entire system for a year and 0.100 mg/L at any individual monitoring location averaged over the year.

What should I do?

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on Channel 22 or Radio Station KMMM (97.3 FM).

What was done?

TTHMs and HAA5s are a group of chemicals that are formed when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. We are working to minimize the formation of TTHMs and HAA5s while ensuring an adequate level of disinfection to protect customers from exposure to bacteria.

We have set-up new procedures at the systems to ensure all samples are collected and analyzed according to our monitoring plan.

For more information, please contact John Johnson, manager of System D, at 555-1234 or write to 2600 Winding Rd., Townsville, SA 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by System D.

State Water System ID# SA1234589. Sent: April 30, 200X+1

Example 6-8. Example of a Notice in the CCR for LRAA and Compliance Calculations for TTHM and HAA5 M&R Violations

Violation

- Our water system recently failed to collect the correct number of drinking water samples. We routinely monitor for the presence of drinking water contaminants. In June 200X our system failed to collect the required number of samples to test for total trihalomethanes (TTHMs) and haloacetic acids (HAA5s) in our drinking water. Using the data we have collected over the past year, we are not in violation of the standards for either TTHM or HAA5s. The standards for TTHMs are 0.080 mg/L averaged over the entire system for a year and 0.120 mg/L at any individual monitoring location averaged over the year and for HAA5s are 0.060 mg/L averaged over the entire system for a year and 0.100 mg/L at any individual monitoring location averaged over the year.

  TTHMs and HAA5s are a group of chemicals that are formed when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. We are working to minimize the formation of TTHMs and HAA5s while ensuring an adequate level of disinfection to protect customers from exposure to bacteria. Since we failed to collect the correct number of samples in June 200X any potential health effects related to the use of that water are unknown.

  We have set-up new procedures at the systems to ensure all samples are collected and analyzed according to our monitoring plan.

Example 5: Conducting an IDSE and Submitting the IDSE Report by Specified Date, or Using IDSE Alternatives

System Description - System E

System E is a large Subpart H system that serves 14,000 people, purchases finished surface water year round, and treats its own surface water from a lake. The surface water is treated at a conventional filtration plant that uses chlorine as a disinfectant.

Population Served:	14,000
Source:	Purchased surface water, surface water (from lake)
Treatment #1:	Conventional filtration, chlorine (to treat surface water from lake)

Because System E serves more than 10,000 people, its IDSE report is due on [insert date 24 months after publication] under the Stage 2 DBPR. IDSEs are studies used in conjunction with Subpart L compliance monitoring under the Stage 1 DBPR to identify and select compliance monitoring sites that represent high TTHM and HAA5 levels throughout the distribution system. Each study will be based on system-specific monitoring as proposed §141.602. All CWSs and any NTNCWSs that serves 10,000 or more people that add a primary or residual disinfectant other than UV light or deliver such water must comply with this requirement.

Consecutive systems must comply with IDSE requirements based on whether they buy some or all of their water from another PWS. Consecutive systems must comply with the [insert date 24 months after publication] if any system in the combined distribution system serves more than 10,000 people. If none of the systems in the combined distribution serve more than 10,000 people consecutive systems must

complete an IDSE by [insert date 48 months after publication]. A consecutive system that buys some but not all of its finished water during the period identified in this paragraph must treat each entry point from a wholesale system as a treatment plant for the purpose of determining monitoring requirements of this subpart if water is delivered from the wholesale system to the consecutive system for at least 60 days through that entry point. A consecutive system that buys all its finished water during the period identified in this paragraph must monitor based on population and source water.

IDSE reports must include all TTHM and HAA5 analytical results from compliance monitoring conducted during the period of the IDSE and a schematic of the distribution system (with results, location, and date of all IDSE monitoring, system-specific study monitoring, and compliance monitoring). Reports must also include all additional data relied on to justify IDSE monitoring site selection, the original monitoring plan developed under proposed §141.602, and an explanation of any deviations from that plan. If a system used the system-specific study alternative, the report must include the basis by which it was determined that the recommended monitoring sites represented TTHM and HAA5 levels comparable or superior to those that would have otherwise been identified under proposed §141.602.

Situation

On [insert date 24 months after publication], System E's qualified operator completes the IDSE plan. The operator submits the plan to the primacy agency. A copy is placed on file at the treatment plant and at the system offices for inspection by the public and the primacy agency. However, System E has not included all required distribution system samples. The system is required to collect a total of 16 dual sample sets because 8 sample sets per plant are required and the system's consecutive entry point is considered to be a plant. Only 8 of the 16 required dual sample sets for the monitoring period are included in the plan.

Public Notification and Consumer Confidence Report Requirements

System E is in violation of the Stage 2 DBPR for failing to submit a complete IDSE report prior to [insert date 24 months after publication] even though the system submitted a report to the primacy agency before the compliance deadline.

The system must provide Tier 3 public notice of the violation. The system must provide public notification within 1 year of learning of the violation. Notification must be provided by mail or other direct delivery method (such as hand delivery), and any other reasonable method to reach affected individuals that would not have received the information by mail or the direct delivery method used. Notice must be provided to each customer receiving a bill and other service connections to which water is delivered.

Since System E is a community water system, it could use the CCR to inform the public of the Tier 3 violations if the CCR is released within 1 year of the system's learning of the violations. For this particular example, the system became aware of the violations on X, 200X [insert date 48 months after rule promulgation]. The public could therefore be informed of the violation in the CCR produced for calendar year 200X-1 if the CCR is released prior to X, 200X+1 (the CCR for calendar year 200X-1 is required to be released by July 1, 200X, for compliance with the CCR Rule). In this situation, additional public notification would not be required. However, whether public notification is provided by the CCR for calendar year 200X-1 or by other means, this violation would still have to be reported by the system

in the CCR produced for calendar year 200X, since all violations of National Primary Drinking Water Rules must be reported in the CCR for the calendar year in which the system became aware of the violation. The violation report in the CCR should include similar information contained in the public notice.

An example of a public notice that fulfills the public notification requirements for this violation is shown in Example 6.9. An example of a report of this violation in the CCR is shown in Example 6.10.

Example 6-9. Example Tier 3 Public Notification for Conducting an IDSE and Submitting the IDSE Report by Specified Date, or Using IDSE Alternatives

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Monitoring and Reporting Requirements Not Met for System E

On [insert date 36 months after publication] we were informed by the state that our system recently failed to submit the proper information to the state in our initial distribution system evaluation (IDSE). Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

On [insert date 24 months after publication], we completed and submitted to the state an IDSE plan. However, in the plan we did not include all required distribution system samples. Using the requirement for a system having one treatment plant we planned to collect information from 8 sample sets sites. However we are required to collect a total of 16 sample sets sites (8 samples sets per plant). In addition to our system's treatment plant, our system's connection to System Y is considered to be a plant.

What should I do?

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on Channel 22 or Radio Station KMMM (97.3 FM).

What was done?

We have revised and resubmitted the IDSE report to the state identifying the 16 sample sets sites as required.

For more information, please contact John Johnson, manager of System E, at 555-1234 or write to 2600 Winding Rd., Townsville, SA 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by System E.

State Water System ID# SA1234589. Sent: [insert date 36 months after publication]

Example 6-10. Example of a Notice in the CCR for Conducting an IDSE and Submitting the IDSE Report by Specified Date, or Using IDSE Alternatives

Violation

- Our system recently failed to submit the proper information to the state in our initial distribution system evaluation (IDSE). On [insert date 24 months after publication], we completed and submitted to the state an IDSE plan. However, in the plan we did not include all required distribution system samples. Using the requirement for a system having one treatment plant we planned to collect information from 8 sample sets sites. However we are required to collect a total of 16 sample sets sites (8 samples sets per plant). In addition to our system's treatment plant, our system's connection to System Y is considered to be a plant.

  We have revised and resubmitted the IDSE report to the state identifying the 16 sample sets sites as required.

Example 6: Failure to Submit DBP Monitoring Plan to Primacy Agency

System Description - System F

System F is a large Subpart H community water system serving 100,000 people that has a surface water source and a GWUDI source. The surface water source is treated with a conventional filtration plant, and the GWUDI source is membrane filtered. All sources are disinfected with chlorine. The system is required to monitor according to proposed §141.620(d). The system utilizes two plants known as TP 1 and TP 2.

Population Served:	100,000
Source #1:	Surface water
Treatment #1:	Conventional filtration, chlorine
Source #2:	GWUDI
Treatment:	Membrane filtration, chlorine

Any system required to monitor under the provisions of the Stage 2 DBPR is required to develop and implement a monitoring plan. System F's qualified operator must prepare a plan that includes (at a minimum) the elements listed in proposed §141.622(a). Because System F serves more than 3,300 people, the operator must also submit a copy of the monitoring plan to the primacy agency prior to the date that the system has to begin complying with the plan, as described in proposed §141.622(c). According to proposed §141.620(c), the effective date of the rule for System F is [insert date 72 months following publication].

Situation

On [insert date prior to compliance deadline], System F's operator completes the monitoring plan and includes all of the elements described in proposed §141.622(a). A copy is placed on file at the treatment plant and at the system offices and is available for inspection by the public and the primacy agency. On [insert date 72 months following publication], the operator begins to monitor in accordance with the plan. On [insert date at end of first quarter of monitoring], the records show that the operator has collected,

analyzed, and recorded the appropriate data for all samples required under the terms of the monitoring plan. The operator calculates compliance based upon the requirements of the monitoring plan and submits the appropriate compliance information to the primacy agency within 10 days after the end of the quarter [insert date 10 days after the end of the first quarter of monitoring]. Although System F completed its monitoring plan, System F did not submit its plan to the primacy agency prior to the date that the system has to begin complying with the plan.

Public Notification and Consumer Confidence Report Requirements

System F is in violation of the Stage 2 DBPR for failing to submit its monitoring plan to the primacy agency by [insert date prior to 72 months following rule promulgation], even though the plan was prepared and implemented properly. Subsequently, the primacy agency received the monitoring plan on [insert date following the violation].

The system must provide Tier 3 public notice of the violation. The system must provide public notification within 1 year of learning of the violation. Notification must be provided by mail or other direct delivery method (such as hand delivery), and any other reasonable method to reach affected individuals that would not have received the information by mail or the direct delivery method used. Notice must be provided to each customer receiving a bill and other service connections to which water is delivered.

Since System F is a community water system, it could use the CCR to inform the public of the Tier 3 violations if the CCR is released within 1 year of the system's learning of the violations. For this particular example, the system became aware of the violations on April 5, 200X [insert date 72 months after rule promulgation]. The public could therefore be informed of the violation in the CCR produced for calendar year 200X-1 if the CCR is released prior to April 5, 200X+1 (the CCR for calendar year 200X-1 is required to be released by July 1, 200X, for compliance with the CCR Rule). In this situation, additional public notification would not be required. However, whether public notification is provided by the CCR for calendar year 200X-1 or by other means, this violation would still have to be reported by the system in the CCR produced for calendar year 200X, since all violations of National Primary Drinking Water Rules must be reported in the CCR for the calendar year in which the system became aware of the violation. The violation report in the CCR should include similar information contained in the public notice.

An example of a public notice that fulfills the public notification requirements for this violation is shown in Example 6.11. An example of a report of this violation in the CCR is shown in Example 6.12.

Example 6-11. Example Tier 3 Public Notification for Failure to Submit DBP Monitoring Plan to Primacy Agency

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Monitoring and Reporting Requirements Not Met for System F

On April 5, 200X+1 we became aware that our system failed to submit our monitoring plan to the state that identifies how the system will monitor for contaminants. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

On [insert date prior to compliance deadline], we complete the monitoring plan and included all of the elements required. A copy was placed on file at the treatment plant and at the system's offices and is available for inspection by the public and the primacy agency. On [insert date 72 months following publication], the we began to monitor in accordance with the plan and have collected, analyzed, and recorded the appropriate data for all samples required under the terms of the monitoring plan. However, we are in violation for failing to submit the monitoring plan to the state by [insert date prior to 72 months following rule promulgation], even though the plan was prepared and implemented properly.

What should I do?

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on Channel 22 or Radio Station KMMM (97.3 FM).

What was done?

We submitted the monitoring plan to the state on [insert date following the violation]. This situation is now resolved.

For more information, please contact John Johnson, manager of System F, at 555-1234 or write to 2600 Winding Rd., Townsville, SA 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by System F.

State Water System ID# SA1234589. Sent: April 6, [insert date 72 months after rule promulgation]

Example 6-12. Example of a Notice in the CCR for Failure to Submit DBP Monitoring Plan to Primacy Agency

Violation

- Our system failed to submit our monitoring plan to the state that identifies how the system will monitor for contaminants. On [insert date prior to compliance deadline], we complete the monitoring plan and included all of the elements required. A copy was placed on file at the treatment plant and at the system's offices and is available for inspection by the public and the primacy agency. On [insert date 72 months following publication], the we began to monitor in accordance with the plan and have collected, analyzed, and recorded the appropriate data for all samples required under the terms of the monitoring plan. However, we are in violation for failing to submit the monitoring plan to the state by [insert date prior to 72 months following rule promulgation], even though the plan was prepared and implemented properly.

  We submitted the monitoring plan to the state on [insert date following the violation]. This situation is now resolved.

Example 7: Bromate M&R Violation

System Description - System G

System G is a small Subpart H CWS that serves 4,700 people, uses surface water, and treats with a softening plant. Both ozone and chlorine are used as disinfectants. System G utilizes one plant and one source. System G wishes to qualify for a reduced bromate monitoring schedule, reducing monitoring from once monthly at the entry point to the distribution system to once quarterly at the entry point to the distribution system.

Population Served:	4,700
Source:	Surface water
Treatment:	Softening plant, ozone, chlorine

The Stage 1 DBPR includes a requirement for all systems using ozone to monitor for bromate at the entrance to the distribution system from each ozone plant. In order to qualify for reduced bromate monitoring under the Stage 1 DBPR and for the first 36 months after promulgating the Stage 2 DBPR, System G must conduct monthly bromide monitoring in the source water. Since System G would like to qualify for reduced monitoring, the qualified operator collects one sample for bromate from the entrance to the distribution system on a monthly frequency and one sample for bromide from the source water on a monthly frequency. To qualify for reduced bromate monitoring under the Stage 1 DBPR and for the first 36 months after promulgating the Stage 2 DBPR, the RAA for bromide in source water must be less than 0.05 mg/L. After [insert date 36 months after rule publication], the RAA for bromate must be less than 0.0025 mg/L and samples must be analyzed using Method 317.0 Revision 2.0, 326.0, or 321.8 to qualify for reduced monitoring. If the samples are not analyzed using one of these analytical methods, the system must resume or continue monthly bromate monitoring, using one of the above analytical methods, until the system qualifies for reduced monitoring.

If a PWS has qualified for reduced monitoring before [insert date 36 months after rule publication], the system may remain on reduced monitoring as long as the bromate RAA of quarterly samples is 0.0025

mg/L or less, using Method 317.0 Revision 2.0, 326.0, or 321.8. If the RAA of bromate is greater than 0.0025 mg/L, the system no longer qualifies for reduced bromate monitoring and is required to resume routine monitoring for bromate.

At the beginning of 200X-1, 24 months after promulgating the Stage 2 DBPR, System G's qualified operator reviews bromide source water monitoring for the previous year to determine whether the system qualifies for a reduced bromate monitoring frequency. Based on the sample results System G is qualified to go on to for reduced bromate monitoring since the RAA for bromide source water monitoring collected in 200X-2 is less than 0.05 mg/L. System G conducts quarterly bromate monitoring for the year of 200X-1.

At the beginning of 200X (36 months after promulgating the Stage 2 DBPR), System G calculates the RAA for bromate based on data collected the previous year and compares it to 0.0025 mg/L. If the annual average bromate concentration is less than 0.0025 mg/L, then the operator may continue to conduct quarterly bromate monitoring. Although the RAA for bromate is less than 0.0025 mg/L, the operator realizes that the bromate samples collected in 200X-1 were not analyzed using Method 317.0 Revision 2.0, 326.0, or 321.8. Therefore, the operator returns to routine monitoring for bromate in 200X and collects and analyzes one bromate sample using Method 326.0 from the entry point to the distribution system once a month, according to the requirements of the system's monitoring plan. The operator records the results on the bromate monitoring form and, after 1 year of monthly monitoring for bromate, determines that the RAA for bromate is less than 0.0025 mg/L. Since System G qualifies for reduced monitoring, the system collects quarterly bromate samples during the year 200X+1.

Situation

Table 6-5 summarizes the System G source water bromide and treated water bromate monitoring results.

Table 6-5. System G Bromide and Bromate Monitoring Results

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	RAA
Bromide Source Water Monitoring Results (mg/L)													
200X-2	0.020	0.010	0.040	0.080	0.060	0.100	0.080	0.050	0.020	0.010	0.040	0.020	**0.044**
Bromate Monitoring Results (mg/L)													
200X-2	0.006	0.004	0.005	0.002	0.003	0.004	0.002	0.001	0.003	0.002	0.004	0.002	**0.003**
200X-1			0.001			0.002			0.003			0.001	**0.002**
200X	0.002	0.001	0.003	0.001	0.001	0.001	0.002	0.001	0.001	0.002	0.003	0.002	**0.002**
200X+1			0.002			0.008	NS	NS	0.005	NS	NS	0.003	**0.005**

RAA = Running Annual Arithmetic Average
NS = No samples taken after system should have returned to routine monthly monitoring

Public Notification and Consumer Confidence Report Requirements

System G is not eligible for a reduction in monitoring frequency after the month of June 200X+1 because the RAA of bromate is greater than 0.0025 mg/L for the four most recent quarters. After June 200X+1,

the RAA of samples collected from third quarter 200X to second quarter 200X+1 equals 0.0026 mg/L. Therefore, after the second quarterly sample in 200X+1, System G no longer qualifies for reduced quarterly bromate monitoring. Beginning in July, System G is required to begin monitoring monthly for bromate. Since System G did not collect another bromate sample until September 200X+1, System G is in violation of the requirement to return to routine monitoring once the RAA of bromate samples are greater than 0.0025 mg/L.

The system must provide Tier 3 public notice of the violation. The system must provide public notification within 1 year of learning of the violation. Notification must be provided by mail or other direct delivery method (such as hand delivery), and any other reasonable method to reach affected individuals that would not have received the information by mail or the direct delivery method used. Notice must be provided to each customer receiving a bill and other service connections to which water is delivered.

Since System G is a community water system, it could use the CCR to inform the public of the Tier 3 violations if the CCR is released within 1 year of the system's learning of the violations. For this particular example, the system became aware of the violations on December 15, 200X +1. The public could therefore be informed of the violation in the CCR produced for calendar year 200X if the CCR is released prior to December 15, 200X+2 (the CCR for calendar year 200X is required to be released by July 1, 200X+1, for compliance with the CCR Rule). In this situation, additional public notification would not be required. However, whether public notification is provided by the CCR for calendar year 200X+1 or by other means, this violation would still have to be reported by the system in the CCR produced for calendar year 200X+1, since all violations of National Primary Drinking Water Rules must be reported in the CCR for the calendar year in which the system became aware of the violation. The violation report in the CCR should include similar information contained in the public notice.

An example of a public notice that fulfills the public notification requirements for this violation is shown in Example 6.13. An example of a report of this violation in the CCR is shown in Example 6.14.

Example 6-13. Example Tier 3 Public Notification for Bromate M&R Violation

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Monitoring and Reporting Requirements Not Met for System G

On December 15, 200X +1 we became aware that our system recently failed to collect the correct number of drinking water samples. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

Our system qualified to reduce the number of samples required to monitor for bromate in 200X-1. Bromate is a chemical that is formed when a system uses ozone to disinfect drinking water and it reacts with naturally occurring bromide in source water. We were allowed to take 1 sample per quarter rather than 1 sample per month. In June 200X+1 because the running annual average exceeded 0.0025 mg/L and we no longer qualify for reduced quarterly bromate monitoring. Beginning in July, we failed to begin monitoring monthly for bromate.

What should I do?

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on Channel 22 or Radio Station KMMM (97.3 FM).

What was done?

We began monitoring monthly for bromate in December 200X+1 and will continue to monitoring on this schedule.

For more information, please contact John Johnson, manager of System G, at 555-1234 or write to 2600 Winding Rd., Townsville, SA 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by System G.

State Water System ID# SA1234589. Sent: January 10, 200X+2

Example 6-14. Example of a Notice in the CCR for Bromate M&R Violation

Violation

- Our system recently failed to collect the correct number of drinking water samples. Our system qualified to reduce the number of samples required to monitor for bromate in 200X-1. Bromate is a chemical that is formed when a system uses ozone to disinfect drinking water and it reacts with naturally occurring bromide in source water. We were allowed to take 1 sample per quarter rather than 1 sample per month. In June 200X+1 because the running annual average exceeded 0.0025 mg/L and we no longer qualify for reduced quarterly bromate monitoring. Beginning in July, we failed to begin monitoring monthly for bromate. Since we failed to collect the correct number of samples in July 200X+1 any potential health effects related to the use of that water are unknown.

  We began monitoring monthly for bromate in December 200X+1 and will continue to monitoring on this schedule.

Example 8: Failure to Maintain Copies of Monitoring Plan Recordkeeping Violation

System Description - System H

System H is a small water system serving 5,200 people that uses surface water and treats with a softening plant. Chlorine is used as a disinfectant.

Population Served:	5,200
Source:	Surface water
Treatment:	Softening plant, chlorine

Situation

System H, which is not required to monitor for *Cryptosporidium* under the LT2ESWTR, revises its monitoring plan developed under the Stage 1 DBPR on January 1, 200X [insert date 90 months after publication]. The system keeps a copy of its monitoring plan until January 1, 200Y [insert date 126 months after publication] and then discards it.

Public Notification and Consumer Confidence Report Requirements

System H has committed a recordkeeping violation. Systems are required to keep a copy of their revised monitoring plans for 36 months after modifying them, or for the amount of time that analyses are required to be kept under proposed §141.33(a), whichever is longer. Since proposed §141.33(a) requires systems to keep chemical analyses for 10 years, which is longer than 3 years, System H must keep a copy of its revised monitoring plan until January 1, 200Z [insert date 210 months after publication].

The system must provide Tier 3 public notice of the violation. The system must provide public notification within 1 year of learning of the violation. Notification must be provided by mail or other direct delivery method (such as hand delivery), and any other reasonable method to reach affected individuals that would not have received the information by mail or the direct delivery method used. Notice must be provided to each customer receiving a bill and other service connections to which water is delivered.

Since System H is a community water system, it could use the CCR to inform the public of the Tier 3 violations if the CCR is released within 1 year of the system's learning of the violations. For this particular example, the system became aware of the violations on April 1, 200Y. The public could therefore be informed of the violation in the CCR produced for calendar year 200Y if the CCR is released prior to April 1, 200Y+1. In this situation, additional public notification would not be required. However, whether public notification is provided by the CCR for calendar year 200Y or by other means, this violation would still have to be reported by the system in the CCR produced for calendar year 200Y, since all violations of National Primary Drinking Water Rules must be reported in the CCR for the calendar year in which the system became aware of the violation. The violation report in the CCR should include similar information contained in the public notice.

An example of a public notice that fulfills the public notification requirements for this violation is shown in Example 6.15. An example of a report of this violation in the CCR is shown in Example 6.16.

Example 6-15. Example Tier 3 Public Notification for Failure to Maintain Copies of Monitoring Plan Recordkeeping Violation

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Recordkeeping Requirements Not Met for System H

On April 1, 200Y we became aware that our water system recently failed to keep records on file for the specified time period. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

We were required to revises our monitoring plan by January 1, 200X [insert date 90 months after publication]. We kept of a copy of it until January 1, 200Y [insert date 126 months after publication] and then discarded it. However, we were required to keep a copy of the plan for 10 years, we should have kept a copy of its revised monitoring plan until January 1, 200Z [insert date 210 months after publication].

What should I do?

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on Channel 22 or Radio Station KMMM (97.3 FM).

What was done?

Because of the nature of this violation no further actions is required.

For more information, please contact John Johnson, manager of System H, at 555-1234 or write to 2600 Winding Rd., Townsville, SA 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by System H.

State Water System ID# SA1234571. Sent: June 1, 200Y [insert date 126 months after publication]

Example 6-16. Example of a Notice in the CCR for Failure to Maintain Copies of Monitoring Plan Recordkeeping Violation)

Violation

- Our water system recently failed to keep records on file for the specified time period. We were required to revises our monitoring plan by January 1, 200X [insert date 90 months after publication]. We kept of a copy of it until January 1, 200Y [insert date 126 months after publication] and then discarded it. However, we were required to keep a copy of the plan for 10 years, we should have kept a copy of its revised monitoring plan until January 1, 200Z [insert date 210 months after publication].

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